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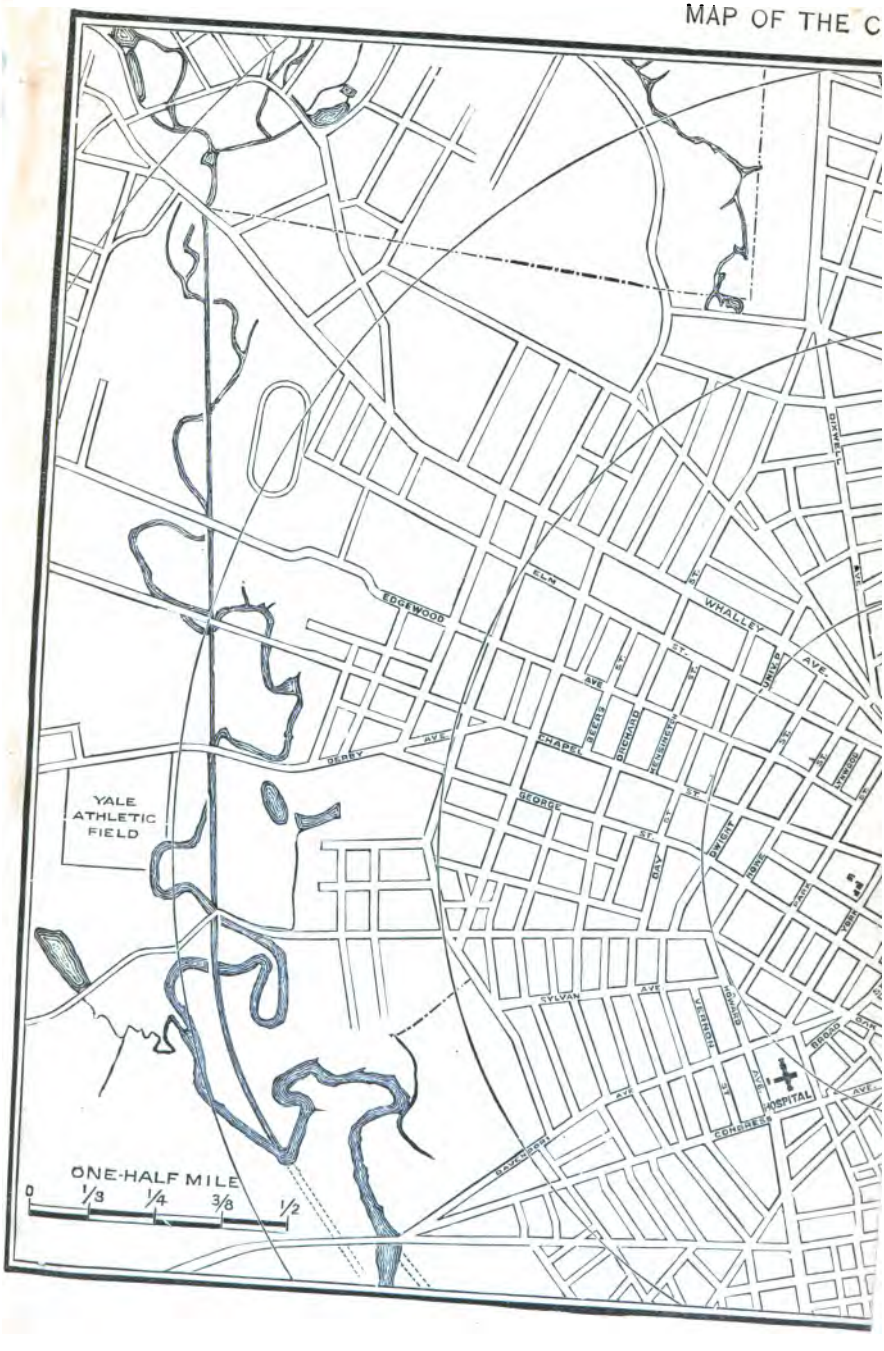
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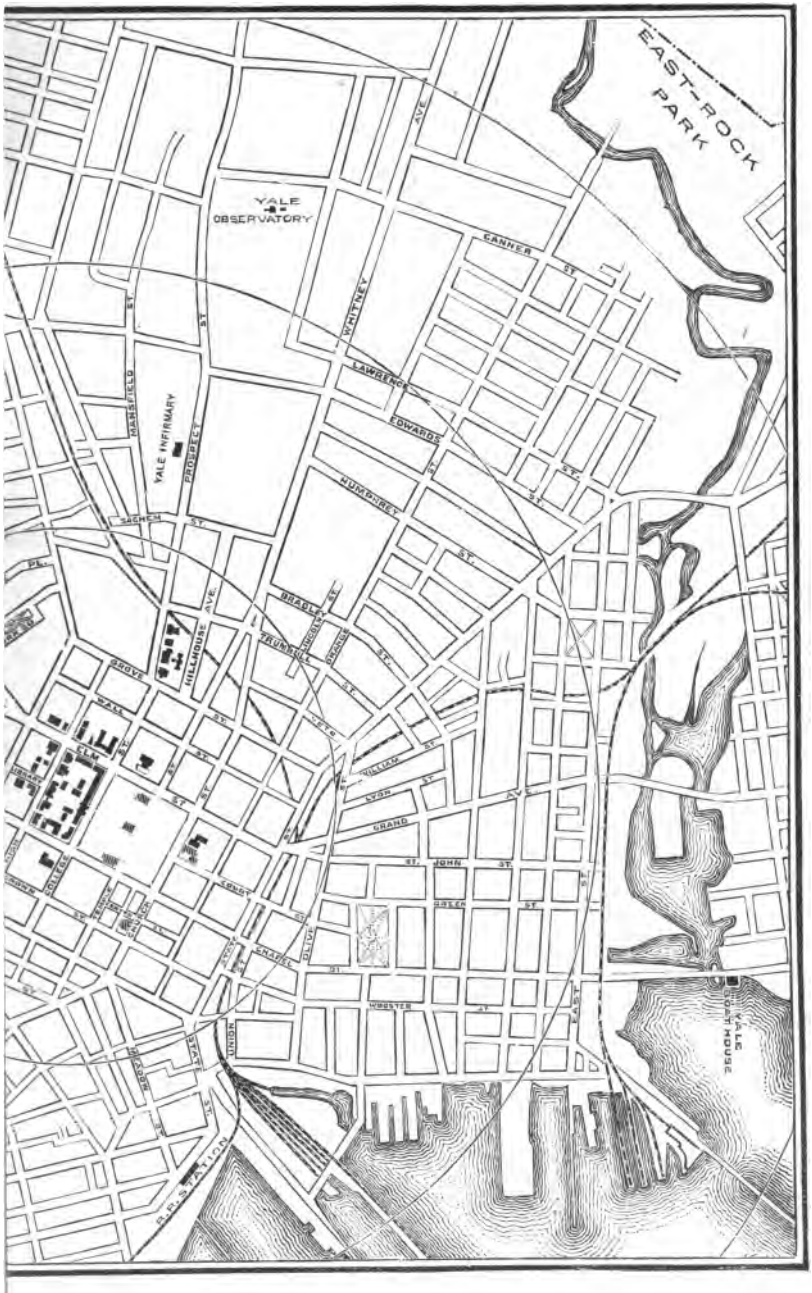
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LAWRENCE ST.
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HUMPHREY ST.
YALE INFIRMARY
MANSFIELD ST.
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GROVE ST.
WALL ST.
ELM ST.
CHAPEL ST.
GRAND AVE.
ST. JOHN ST.
WORCESTER ST.
EAST ST.
UNION ST.
YALE FISH HOUSE

ADDENDA

The following sections were accidentally omitted from the prospectus of graduate instruction for 1896–97 :

UNDER V. MODERN LANGUAGES AND LITERATURES

The Modern Language Club, formed of instructors and students in the departments of English, Romance Languages, and German, holds its regular meetings on the second Saturday evening of each month for the reading and discussion of original papers and for reports of progress in the field of these studies.

UNDER VI. NATURAL AND PHYSICAL SCIENCE

Dr. H. L. WHEELER :—

44 *Advanced Organic Chemistry.* both terms.

This offers an opportunity for more extended study and original investigation to those who have proper preparation.

Mr. HOWE :—

*45 *Organic Chemistry, Paraffin Series.* 2 hrs. both terms.

Recitations supplemented by lectures and a little laboratory-work.

[Mondays and Tuesdays, 3 P. M.]

*46 *Organic Chemistry, Aromatic Series.* 2 hrs. 1st term.

This follows the preceding course and is similarly conducted.

[Thursdays and Fridays, 3 P. M.]

*47 *Organic Preparations.* 1st half of 2d term.

Laboratory-work, consisting of five exercises per week of about three hours each in the preparation of such compounds as will give familiarity with the most important synthetical methods.

*48 *Theoretical Organic Chemistry.* 3 hrs. 1st half of 2d term.

This course is given in connection with organic preparations. Recitations. Hjelt's General Principles of Organic Chemistry is used as a text-book.

49 *Advanced Organic Chemistry.* both terms.

This offers an opportunity for more extended study and original investigation to those who have taken the preceding courses or their equivalent.

[Monday to Friday, inclusive, 9 A. M. to 12 M.]

GRADUATE SCHOOL

OF

YALE UNIVERSITY

COURSES OF INSTRUCTION

FOR

1896-97

NEW HAVEN:
1896

CALENDAR

1896		
24 Sept.	Thursday	First Term begins.
25 Nov.	Wednesday	Thanksgiving Recess begins, 1.20 P. M.
27 Nov.	Friday	Recess ends, 8 A. M.
16 Dec.	Wednesday	First Term ends.
		Winter Vacation
1897		
5 Jan.	Tuesday	Second Term begins.
14 April	Wednesday	Spring Recess begins, 1.20 P. M.
22 April	Thursday	Recess ends, 8 A. M.
20 May	Wednesday	Anniversary of the Divinity School.
31 May	Saturday	School of the Fine Arts, term ends.
27 June	Sunday	Baccalaureate Sermon.
30 June	Wednesday	Commencement.
		Summer Vacation
30 Sept.	Thursday	First Term begins.
22 Dec.	Wednesday	First Term ends.

For information with regard to the Graduate School, not contained in this pamphlet, and also with regard to Fellowships and Scholarships (see page 13), address the Dean,

Professor Andrew W. Phillips.

GRADUATE SCHOOL

OF

YALE UNIVERSITY

FACULTY

REV. TIMOTHY DWIGHT, D.D., LL.D., PRESIDENT

REV. JAMES M. HOPPIN, D.D., *Professor of the History of Art*

EDWARD J. PHELPS, LL.D., *Professor of Law*

HUBERT A. NEWTON, LL.D., *Secretary, and Professor of Mathematics*

GEORGE J. BRUSH, LL.D., *Professor of Mineralogy*

SAMUEL W. JOHNSON, M.A., *Professor of Theoretical and Analytical Chemistry*

WILLIAM H. BREWER, PH.D., *Professor of Agriculture*

JOHN E. CLARK, M.A., *Professor of Mathematics*

ARTHUR M. WHEELER, M.A., *Professor of History*

JOHN F. WEIR, N.A., M.A., *Professor of Painting and Design*

J. WILLARD GIBBS, PH.D., LL.D., *Professor of Mathematical Physics*

CHARLES B. RICHARDS, M.A., *Professor of Mechanical Engineering*

ARTHUR W. WRIGHT, PH.D., *Professor of Experimental Physics*

THOMAS R. LOUNSBURY, LL.D., L.H.D., *Professor of English*

OTHNIEL C. MARSH, PH.D., LL.D., *Professor of Palaeontology*

EUGENE L. RICHARDS, M.A., *Professor of Mathematics*

JOHN H. NIEMEYER, M.A., *Professor of Drawing*

TRACY PECK, M.A., *Professor of Latin*

ADDISON E. VERRILL, M.A., *Professor of Zoology*

WILLIAM G. SUMNER, LL.D., *Professor of Political and Social Science*

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CHARLES H. SMITH, LL.D., *Professor of American History*

JULES LUQUIENS, PH.D., *Professor of Modern Languages*

SIDNEY I. SMITH, M.A., *Professor of Comparative Anatomy*

WILLIAM G. MIXTER, M.A., *Professor of Chemistry*

HENRY P. WRIGHT, PH.D., LL.D., *Professor of Latin*

HENRY S. WILLIAMS, PH.D., *Professor of Geology*
HENRY A. BEERS, M.A., *Professor of English Literature*
A. JAY DUBOIS, PH.D., *Professor of Civil Engineering*
BERNADOTTE PERRIN, PH.D., LL.D., *Professor of Greek*
EDWARD S. DANA, PH.D., *Professor of Physics*
THOMAS D. SEYMOUR, LL.D., *Professor of Greek*
CHARLES S. HASTINGS, PH.D., *Professor of Physics*
FRANK A. GOOCH, PH.D., *Professor of Chemistry*
ALBERT S. COOK, PH.D., L.H.D., *Professor of English*
ANDREW W. PHILLIPS, PH.D., *Dean, and Professor of Mathematics*
GEORGE B. ADAMS, PH.D., *Professor of History*
SAMUEL S. SANFORD, M.A., *Professor of Applied Music*
HENRY W. FARNAM, R.P.D., *Professor of Political Economy*
EDWARD P. MORRIS, M.A., *Professor of Latin*
RUSSELL H. CHITTENDEN, PH.D., *Professor of Physiological Chemistry*
ARTHUR T. HADLEY, M.A., *Professor of Political Economy*
SAMUEL L. PENFIELD, PH.B., *Professor of Mineralogy*
HORACE L. WELLS, PH.B., *Professor of Analytical Chemistry and Metallurgy*
THOMAS D. GOODELL, PH.D., *Professor of Greek*
EDWARD W. HOPKINS, PH.D., *Professor of Sanskrit and Comparative Philology*
ARTHUR H. PALMER, M.A., *Professor of German*
HORATIO M. REYNOLDS, B.A., *Professor of Greek*
GEORGE M. DUNCAN, M.A., *Professor of Philosophy*
FRANK K. SANDERS, PH.D., *Professor of Biblical Literature*
EDWARD G. BOURNE, PH. D., *Professor of History*
HORATIO W. PARKER, M.A., *Professor of Music*

OTHER INSTRUCTORS

REV. GEORGE P. FISHER, D.D., LL.D., *Professor of Ecclesiastical History*
REV. CORNELIUS L. KITCHEL, M.A., *Instructor in Greek*
WILLIAM BEEBE, B.A., *Assistant Professor of Mathematics and Astronomy*
REV. EDWARD L. CURTIS, PH.D., D.D., *Professor of Hebrew*
HENRY R. LANG, PH.D., *Assistant Professor of the Romance Languages*
GEORGE L. FOX. M.A., *Lecturer on Municipal Administration*

REV. WILLIAM F. BLACKMAN, PH.D., *Professor of Christian Ethics*
CHARLES E. BEECHER, PH.D., *Assistant Professor of Palaeontology*
SAMUEL E. BARNEY, C.E., *Assistant Professor of Civil Engineering*
FREDERICK WELLS WILLIAMS, B.A., *Instructor in History*
JAY W. SEAVER, M.D., *Associate Director of the Gymnasium*
FRANK C. PORTER, PH.D., *Professor of Biblical Theology*
E. HERSHEY SNEATH, PH.D., *Assistant Professor of Philosophy*
ROBERT L. TAYLOR, B.A., *Instructor in French*
LOUIS V. PIRSSON, PH.B., *Assistant Professor of Inorganic Geology*
WILLIAM G. ANDERSON, M.D., *Associate Director of the Gymnasium*
GUSTAVE F. GRUENER, B.A., *Assistant Professor of German*
JAMES J. ROBINSON, PH.D., *Instructor in Latin*
EDWARD W. SCRIPTURE, PH.D., *Instructor in Experimental Psychology*
WARREN A. ADAMS, B.A., *Instructor in German*
JOHN C. SCHWAB, PH.D., *Assistant Professor of Political Science*
THOMAS C. STEARNS, M.A., *Lecturer on the History of Philosophy*
A. GUYOT CAMERON, PH.D., *Assistant Professor of French*
REV. ARTHUR FAIRBANKS, PH.D., *Instructor in Comparative Religion*
CARLETON L. BROWNSON, B.A., *Instructor in Greek*
ROBERT N. CORWIN, PH.D., *Instructor in German*
WILLIAM LYON PHELPS, PH.D., *Instructor in English Literature*
EDWARD G. BUCKLAND, M.A., LL.B., *Assistant Professor of Evidence*
ALFRED J. WAKEMAN, PH.D., *Instructor in Analytical Chemistry*
HANNS OERTEL, PH.D., *Assistant Professor of Comparative Philology*
JAMES P. PIERPONT, PH.D., *Assistant Professor of Mathematics*
IRVING FISHER, PH.D., *Assistant Professor of Political Economy*
PERCY F. SMITH, PH.D., *Assistant Professor of Mathematics*
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ALEXANDER W. EVANS, M.D., *Instructor in Botany and Bacteriology*
PHILIP E. BROWNING, Ph.D., *Instructor in Chemistry*
JOSEPH BOWDEN, JR., B.A., *Tutor in Mathematics*
LAFAYETTE B. MENDEL, PH.D., *Instructor in Physiological Chemistry*
JAMES W. D. INGERSOLL, PH.D., *Tutor in Latin*
WESLEY R. COE, PH.D., *Instructor in Biology*
WENDELL M. STRONG, M.A., *Tutor in Mathematics*

ADMINISTRATIVE COMMITTEE

WITH CONSULTATION HOURS

REV. TIMOTHY DWIGHT, D.D., LL.D., PRESIDENT,
Room 7, Treasury Building, daily, 10.30 A. M. to 12 M.

ANDREW W. PHILLIPS, PH.D., DEAN, *and Professor of Mathematics*,
90 High street, daily, except Saturday, 2.30 to 4 P. M.

HUBERT A. NEWTON, LL.D., *Professor of Mathematics*,
238 Prospect street, daily, 2 to 3 P. M.

GEORGE J. BRUSH, LL.D., *Director of the Sheffield Scientific School*,
3 Sheffield Hall, daily, 10 A. M. to 12 M.

ARTHUR M. WHEELER, M.A., *Professor of History*,
C_2 Osborn Hall, Monday and Friday, 10.30 A. M. to 12.30 P. M.

CHARLES B. RICHARDS, M.A., *Professor of Mechanical Engineering*,
112 Winchester Hall, 9 A. M. to 12 M., Wednesday and Saturday.

REV. GEORGE T. LADD, D.D., LL.D., *Professor of Philosophy*,
B_1 Osborn Hall, Tuesday and Wednesday, 9.35 to 10.20 A. M.

THOMAS D. SEYMOUR, LL.D., *Professor of Greek*,
Phelps Memorial Hall, daily, 11 A. M. to 12 M.

ALBERT S. COOK, PH.D., L.H.D., *Professor of English*,
135 Elm street, Wednesday and Friday, 10.30 to 11.30 A. M.

HENRY W. FARNAM, R.P.D., *Professor of Political Economy*,
43 Hillhouse av., daily, 2 to 3 P. M.

RUSSELL H. CHITTENDEN, PH.D., *Professor of Physiological Chemistry*,
64 Sheffield Biological Laboratory, Monday, Tuesday, Wednesday, and Thursday, 9 A. M. to 12 M.

ARTHUR T. HADLEY, M.A., *Professor of Political Economy*,
E_2 Osborn Hall, Saturday, 10.30 A. M. to 1 P. M.

FRANK K. SANDERS, PH.D., *Professor of Biblical Literature*,
77 Mansfield st., daily, 2 to 3 P. M.

GENERAL STATEMENT

ORGANIZATION

The Graduate School of Yale University forms a section of the Department of Philosophy and the Arts, which was first formally organized in 1847 for scientific and graduate instruction, but now includes Yale College, the Sheffield Scientific School, the Art School, and the Department of Music.

The degrees of Doctor of Philosophy and Civil Engineer were first offered in 1860, the degree of Dynamical or Mechanical Engineer in 1873, and that of Master of Arts (previously given without evidence of study) in 1874.

The professors in the several sections of the Department of Philosophy and the Arts together constitute the Faculty of the Graduate School. The general oversight of graduate instruction and graduate students is entrusted to the Dean and the Administrative Committee, who may be called upon for information and advice. Students are expected to report to the Dean soon after reaching New Haven.

ADMISSION AND REGISTRATION

Graduates of this and other Colleges and Universities, and (in exceptional cases, by special permission) other persons of liberal education, who are at least eighteen years old, are received as students for longer or shorter periods, with or without reference to the attainment of a degree.

All graduate students who are not regularly enrolled in any other department of the University, are required to register their names at the office of the Dean at the beginning of each year of study.

The degree of Doctor of Philosophy with the courses of the Graduate School leading thereto is open to candidates without distinction of sex.

INSTRUCTION

Courses of study are offered in the following departments:

PSYCHOLOGY, ETHICS, AND PHILOSOPHY.
POLITICAL AND SOCIAL SCIENCE, AND HISTORY.
ORIENTAL LANGUAGES AND BIBLICAL LITERATURE.
CLASSICAL PHILOLOGY.
MODERN LANGUAGES AND LITERATURES.
NATURAL AND PHYSICAL SCIENCE.
PURE AND APPLIED MATHEMATICS.
THE FINE ARTS.
MUSIC.
PHYSICAL CULTURE.

Instruction is given partly by lectures, partly by recitations and by oral and written discussions, partly by directing courses of reading, and partly by work in the laboratories and with instruments.

The attention of teachers who desire to fit themselves more thoroughly for a higher grade of professional work is called to the advantages offered by this department for pedagogical instruction and discipline. In addition to the special and advanced study of the subjects in which the graduate student desires instruction, and the pursuit of courses in psychology, ethics, philosophy, and of other courses cognate with pedagogy, opportunity will be afforded to observe the actual practice in the class-room, as well as the organization of the different departments of the University and their methods of work.

CLUBS

In various voluntary associations, instructors and students meet together periodically for the reading of papers, oral discussions, etc.; such are:

THE CLASSICAL CLUB.
THE MATHEMATICAL CLUB.
THE POLITICAL SCIENCE CLUB.
THE PHILOSOPHICAL CLUB.
THE SEMITIC CLUB.
THE BIBLICAL CLUB.
THE COMPARATIVE RELIGION CLUB.
THE MODERN LANGUAGE CLUB.
THE ENGLISH CLUB.
THE PHYSICS JOURNAL CLUB.

FEES AND EXPENSES

The fee for instruction is generally one hundred dollars; but it may be more, or less, according to the courses pursued and the amount of instruction received.

A special fee of five dollars is charged to those who use the gymnasium, and of two dollars to those admitted to the use of the College Reading Room.

Board is obtained at prices varying from three and a half to eight dollars a week. The average price is under five dollars.

A list of suitable rooms may be found at the Dean's office.

LIBRARIES AND READING-ROOMS

Students have the free use of all the Libraries of the University. The whole number of volumes in the several libraries of the University is over 230,000.

The UNIVERSITY LIBRARY contains about 190,000 volumes, and many thousands of unbound pamphlets. Its READING-ROOM contains the books most important for daily consultation and reference, together with scholarly periodicals. Of current periodical publications, including publications of learned societies, the Library receives an unusually large number,—the foreign serials alone being not less than five hundred.

The LINONIAN AND BROTHERS LIBRARY contains about 20,000 volumes of the best current literature.

THE COLLEGE READING-ROOM receives fifty-two daily newspapers, American and foreign, over sixty weeklies, and about seventy other periodicals—in addition to the periodicals received at the University Library. Graduate Students are admitted to the College Reading-Room on payment of an annual fee of two dollars.

THE SHEFFIELD SCIENTIFIC SCHOOL LIBRARY contains 6,000 volumes, largely mathematical.

THE ART SCHOOL LIBRARY contains about 500 volumes of expensive illustrated works.

THE LOWELL MASON LIBRARY contains 4,000 volumes of music.

The Peabody Museum, the Observatory, and the several Laboratories have valuable technical libraries.

Several of the departments of study (the Classical, English, Political Science, and Historical) have special libraries of standard works for the use of advanced students.

Dwight Hall, the headquarters of the Young Men's Christian Association, is provided with a good library and a pleasant reading-room, besides the halls used for religious meetings.

A parlor and study-room at 135 Elm street is fitted up for the special use of the women studying in the graduate department.

LABORATORIES, MUSEUMS, AND COLLECTIONS

The Peabody Museum of Natural History.

The Physical, the Chemical, the Biological, and the Engineering Laboratories of the Sheffield Scientific School.

The Sloane Physical, the Kent Chemical, and the Psychological Laboratories of Yale College.

The collections of the School of Fine Arts.

The collections of coins in the University Library, and various collections of models, casts, and photographs used in the teaching of mathematics and in other departments of instruction.

LECTURES AND CONCERTS

The following courses of public lectures and concerts are open to the students of the University:

THE MECHANICS' COURSE.
THE ART COURSE.
THE THEOLOGICAL SCHOOL LECTURE COURSES.
THE DWIGHT HALL COURSE.
THE PHI BETA KAPPA COURSE.
THE KENT CLUB COURSE.
THE UNIVERSITY CHAMBER CONCERTS.
THE UNIVERSITY SYMPHONY CONCERTS.

DEGREES

THE DEGREE OF DOCTOR OF PHILOSOPHY is conferred upon those who, after having taken a Bachelor's degree (implying a course of undergraduate study equivalent to that pursued in Yale College), and having studied in this department for not less than two years, shall have passed a satisfactory final examination and presented a thesis giving evidence of high attainment in the branches of knowledge pursued. The thesis must be deposited at the Library for public inspection, not later than June 1. The degree is not given, upon examination, to those whose studies are pursued elsewhere. The requirements for a degree in many cases exact of the student more than two years of labor; especially when the course of undergraduate study has been less than four years. A good knowledge of Latin, German, and French is required in all cases, unless, for some very exceptional reasons, the candidate be excused by the Faculty. The fee for graduation is ten dollars.

THE DEGREE OF MASTER OF ARTS is conferred on Bachelors of Arts of Yale College or of other colleges, of two

years' standing or upwards, who have given to the College Faculty evidence of having made satisfactory progress in liberal studies after receiving their first degree. Such evidence may be furnished by one year's systematic study (not professional) in New Haven, under the direction of the College Faculty, followed by an examination. Graduates of other colleges can obtain the degree only by residence as thus described.

Such Bachelors of Arts *of Yale College* as may not choose to reside at the College for the prosecution of study may show at any time, not less than three years after graduation, by their printed essays, or by submitting to special examinations, that they have spent a year in liberal (and non-professional) study, and are worthy of recommendation for this degree.

A committee of the Faculty is appointed (consisting for the present year of Professors Newton and Wheeler), to whom candidates for this degree must submit their proposed courses of study for approval by the first of November in each year; and the evidence of a year's study must be submitted to the same committee by June 1.

In the case of resident students, the charge for instruction will usually be one hundred dollars, with a fee of ten dollars for the degree. In the case of non-residents, the fee for examinations and the degree will usually be twenty-five dollars.

THE DEGREES OF CIVIL ENGINEER AND MECHANICAL ENGINEER are conferred on Bachelors of Philosophy who have taken the first degree in Engineering study, and who pursue a higher course under the direction of the Governing Board of the Sheffield Scientific School, for at least two years, sustaining a final examination, and giving evidence of their ability to design important constructions and to make the requisite drawings and calculations. The fee for graduation is five dollars.

FELLOWSHIPS AND SCHOLARSHIPS

FIVE FELLOWSHIPS yielding four hundred dollars each, and twenty Scholarships yielding one hundred dollars each, have been created by the Corporation out of the income of University funds. These fellowships and scholarships are open to graduates of all colleges; but in the case of the fellowships, preference is given to those who have already spent at least one year in graduate study, and have shown capacity for original work. Candidates for these appointments should send their applications, accompanied by letters of recommendation and other evidences of the excellence of their work already accomplished, to the Dean, Professor Andrew W. Phillips, not later than May 1.

COURSES OF INSTRUCTION

Courses marked with an asterisk (*) are undergraduate courses, but are open to graduate students, provided that they have the consent of the instructor and the approval of the Faculty.

The number of hours stated means, in every case, hours of exercises, lectures, or recitations, each week.

The hours named for the exercise are subject to change.

COURSES OF INSTRUCTION

I. PSYCHOLOGY, ETHICS, AND PHILOSOPHY

Professor LADD :—

1 *Kant Seminary.* 2 hrs. both terms.

A thorough study of the *Critique of Pure Reason* and, if time permits, a less thorough study of the *Critique of Practical Reason*. After an expository and critical lecture, a paper upon a topic given out some time in advance will be read, to be followed by discussion on the part of both teacher and class.

The effort will constantly be made to understand Kant's system of thinking in the light of the history of opinion since his time, and especially of opinion upon the same subjects in the present day.

[Mondays, 7.15 to 9 P. M.]

2 *Modern Pantheism and Pessimism.* 2 hrs. both terms.

Schopenhauer's *World as Will and Idea* will be read with constant comparison with the views of ancient and modern pessimists, especially with Hartmann. Most of the work will be research, the results to be presented in elaborate papers for discussion before the class.

[Wednesdays, 3.15 to 5 P. M.]

*3 *Ethics.* 2 hrs. both terms.

The principal topics in the philosophy of conduct—such as the nature and validity of moral consciousness, the freedom of will, and the nature and grounds of the morally right—are discussed in a course of lectures. The same topics are studied also as they are presented by some of the principal modern authorities, especially by Sidgwick, *The Methods of Ethics;* Martineau, *Types of Ethical Theory;* Janet, *La Morale;* and Bowne, *Principles of Ethics.* Papers and discussions by the class.

[Mondays, 3.15 to 5 P. M.]

Professor BLACKMAN :—

4 *Christian Ethics.* 2 hrs. both terms.

A study of the ethical teachings of the New Testament, and of Christian Theology, compared with those of Greek Philosophy. The course consists of lectures by the instructor, and of readings from Weiss's *Einleitung in die Christliche Ethik*, Jodl's

Geschichte der Ethik, Paulsen's *System der Ethik*, and the works of Ruthe, Dorner, Martensen, Pfleiderer, Martineau, Janet, and other authors.

Professor DUNCAN :—

5 *Advanced Psychology.* 2 hrs. both terms.

This is a course in *General Psychology*, in which a detailed study is undertaken of the phenomena of mental life from the scientific point of view. James's *Principles of Psychology* will be read, with constant reference to Ladd's *Psychology, Descriptive and Explanatory*, Sully's *Human Mind*, and the works of other leading modern authors ; and the reading will be accompanied by papers, discussions, and lectures.

[Wednesdays and Saturdays, 9.30 A. M.]

6 *Discussions in Philosophy.* 1 hr. both terms.

This is a course in *philosophical criticism*, and is intended to develop and train the critical spirit ; to deepen interest in the more profound themes of philosophy by showing their connection with popular life and thought ; and to vindicate sound psychology and a theistic and Christian philosophy from the perennial misconceptions to which they are exposed. To this end some of the popular philosophical papers of Huxley, Tyndall, Clifford, Spencer, and others will be read and freely discussed.

[Wednesdays, 10.30 A. M.]

*7 *History of Modern Philosophy.* 2 hrs. both terms.

An historical survey of the history of modern philosophy on the continent from Descartes to the present time, with brief notices of contemporary British thought. Especial attention will be given to the tendencies in modern thought known as scepticism and agnosticism. The course is intended for purposes of general culture, but it aims also to be an introduction to the special study of philosophy in its various branches and problems.

[Wednesdays and Saturdays, 11.30 A. M.]

8 *The Philosophy of Hegel.* 1 hr. both terms.

The somewhat thorough study of Hegel's system of philosophical thinking is undertaken. The system is approached in the order of the topics treated in the *Propaedeutik*. That work and the smaller *Logic* are read and discussed, and as much of the Phenomenology of Mind, History of Philosophy, Philosophy of History, etc., as time permits.

[Omitted in 1896–97.]

Assistant Professor SNEATH :—

9 *Philosophy and Literature.* 1 hr. both terms.

This course will consider the nature and problems of philosophy as presented in the writings of distinguished men of letters. The philosophical views of the following authors will be considered: *(English)* Wordsworth, Coleridge, Carlyle, Tennyson, and Browning; *(French)* Pascal, Voltaire, Diderot, The Encyclopædists, and Rousseau; *(German)* Lessing, Herder, Goethe, and Schiller. The aim of the course will be to show what philosophy can do for the student of letters, and how the profounder aspects of thought may be presented in the attractive form of literature.

[Tuesdays, 9.30 A. M.]

*10 *History of Modern Philosophy, mainly British.* 2 hrs. both terms.

An elementary study of the development of philosophical thought in Great Britain from Bacon to the present time, with cursory reading of the more important philosophical masterpieces. This course includes also brief notices of contemporary continental thought, and especial attention is given to the tendencies in modern British thought known as scepticism and agnosticism, and to the evolution philosophy as expounded by Herbert Spencer.

[Wednesdays and Saturdays, 11.30 A. M.]

*11 *Philosophical Anthropology.* 2 hrs. both terms.

This course furnishes an outline study of man,—his body and mind in their relations; his relations to nature, to his fellows, and to God; and his development in history. The course is based upon Lotze's *Microcosmus*.

[Wednesdays and Saturdays, 9.30 A. M.]

Dr. SCRIPTURE :—

*12 *Physiological and Experimental Psychology.* 2 hrs. both terms.

Elementary course illustrated by physiological and psychological experiments, lantern-views, dissections, etc. Text-book: Ladd's *Outlines of Physiological Psychology.*

[Tuesdays and Thursdays, 2 P. M.]

*13 *Laboratory Course in Psychology.* 2 hrs. both terms.

Practical work in the laboratory.

[Mondays, 4 to 6 P. M.]

14 *Psychology; advanced course.* 2 hrs. both terms.

General principles of experiment and measurement; statistics, means, characteristic variations; measurements of mental phenomena; principles of laboratory instruction and economy; practical training in psychological measurements and statistics with instruction in their adjustment; construction and care of apparatus, use of tools, lathe-work, vise-work, etc. No previous acquaintance with psychology is required.

[Wednesdays, 2 to 4 P. M.]

*15 *Educational Psychology.* 1 hr. both terms.

Application of modern psychological principles to educational subjects; touch, its use in education; motor abilities, accuracy of movement, writing and drawing; sight, color-teaching; space, form-teaching, drawing, modeling; attention, concentration, distraction, developing attention; memory, its development and training; imagination, necessity of development and repression, fables, children's books; child-study, principles of anthropometry and psychometry; mental development of the child, beginnings of instruction; various educational subjects from a psychological standpoint, — amusement, play, toys, picture-books, object-lessons, etc. The course is illustrated with models, charts, books, experiments, lantern views, and educational material from Europe and America.

[Tuesdays, 5 P. M.]

16 *Research-Work in Psychology.* 4 hrs. both terms.

Participants in this course are either investigators or assistants. For assistants the object is such a training in accurate introspection, observation, experimenting, and the art of research as is desirable for the general psychologist. This work is open to all. Only those who have had sufficient experience are permitted to undertake independent investigations. The results of all investigations belong to the archives of the laboratory. Those who undertake investigations thereby agree to prepare the results for publication, subject to approval, in the *Studies from the Yale Psychological Laboratory.*

Dr. FAIRBANKS :—

17 *History of Religion.* 2 hrs. both terms.

In this introductory course the different forms of religion among the Indo-Germanic races are made the basis of the work. After a rapid survey of the sources of knowledge, the beliefs and

rites of each religion are carefully studied, and the historic relation between them examined. The constant aim is to trace some of the laws which govern the development of religion, and the factors which tend to aid or hinder its development.

Menzies's *History of Religion* will be read and discussed; selections from the original documents studied in translation; and the more important archaeological remains presented in illustrated lectures.

[Mondays and Thursdays, 9.30 A. M.]

18 *Comparative Religion (advanced course).* 1 hr.

A study of the different forms of sacrifice in their origin, development, and meaning. The object of the course is to bring out the different conceptions of man's relation to God which have been held by different races and different ages.

19 *The Beginnings of Religion.* 2 hrs. 1st term.

Two or three types of religion among uncivilized tribes are studied to show the forms which religion may assume in the lowest stages of civilization; this is followed by a discussion of the relation between savage religion and primitive religion, and by a criticism of the different theories as to the origin of religion.

[Omitted 1896–97.]

20 *Semitic Religion.* 2 hrs. 2d term.

Lectures and readings on the religions of the Semitic peoples, with special reference to the religion of Israel.

[Omitted 1896–97.]

Mr. STEARNS :—

21 *Greek Philosophy.* 2 hrs. both terms.

The aim of this course will be to cover the main period of Greek thought. The first few lectures will be devoted to a summary review of Pre-Socratic philosophy preparatory to the study of Plato, which will constitute the main work of the year. Nearly all the well-authenticated Dialogues will be read, commented upon, and thoroughly discussed, with a view to determining as far as possible Plato's opinions upon the principal philosophical questions. The course will end with the *Metaphysics* of Aristotle under the same mode of treatment. Jowett's translation of the Dialogues and MacMahon's translation of the *Metaphysics* will be the text-books used.

[Mondays and Thursdays, 11.30 A. M.]

Dr. BUCHNER :—

22 *History of the Kantian Philosophy.* 2 hrs. both terms.

This course of lectures, in connection with course 1, is designed to give supplementary external and historical data to aid in the exposition and criticism of the Kantian philosophy. Such topics, as the psychological and historical conditions under which the critical philosophy arose, the developments within the system, its relation to succeeding philosophical systems and its influence upon the activity of the nineteenth century, the history of the criticism and interpretation of the various texts, the Kantian bibliography, etc., will be taken up successively.

[Wednesdays, 10.30 A. M. to 12 M.]

23 *Pedagogical Seminary.* 2 hrs. both terms.

A special study of the more important problems in educational movements is undertaken. The lectures consider genetic psychology, educational theory, and the curriculum, with readings and discussions based on Sully's *Studies of Childhood*, Tracy's *Psychology of Childhood*, Parker's *Talks on Pedagogics*, and the recent reports of the American committees on courses of study.

As a part of this study, the education of woman may be taken up in six or more public lectures at some convenient time during the year.

[Fridays, 10.30 A. M. to 12 M.]

24 *History of Education.* 2 hrs. both terms.

By lectures and the reading of the more important classics, the course of educational thought and activity is traced from antiquity to the present time, special emphasis being placed on modern education. While offering the larger advantages of a culture course, it is so conducted that suggestions for practical guidance are derived by those who expect to enter upon educational duties. Compayré's *History of Pedagogy* and Williams's *History of Modern Education* will furnish a general outline of the year's study.

[Tuesdays and Thursdays, 3 P. M.]

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25 *Philosophy of Evolution.*

This course will trace historically the Evolution Idea. Then will follow a consideration of its more modern forms as held by Darwin, Spencer and others, with a view to criticise the meta-

physical assumptions and elements of their theories, especially as applied to some other than the strictly biological field of research. Continual reference will be made to Spencer's *First Principles*, *Psychology*, and other works.

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26 *Philosophy of the Early Church Fathers.*

This course of lectures will comprise a detailed view of the course of Christian thought during the first three centuries. The object will be to trace the philosophical influences which helped to modify Christianity during this period; to show how Christianity triumphed over heathen philosophy, and the beginnings of a Christian philosophy were made; and to estimate critically the value of these early results for modern thought.

II. POLITICAL AND SOCIAL SCIENCE AND HISTORY

A. POLITICAL AND SOCIAL SCIENCE.

Professor SUMNER :—

1 *Politics and Finance in the History of the United States.*
2 hrs. both terms.

In 1896–97 this course will consist of a critical examination of the current commonplaces of American history, and of the popular methods of treating it. Problems of colonization and the colonial relation; doctrines of commerce in the leading nations, 1774 to 1790; the federal government as inheritor of the difficulties of the mother country; philosophy of the American democratic-republic; inter-action of slavery, tariff, and currency; contributions of the United States to state-craft; the American banking system; land, immigration and labor, etc. Those who take this course are supposed to be well acquainted with the civil history of the United States.

[Mondays and Thursdays, 10.30 to 11.20 A. M.]

2 *Anthropology.* 1 hr. both terms.

A careful study of Ranke's *Der Mensch* (2d ed.), with an examination of the separate topics by means of all the appropriate material. Those who desire to take this course must come provided with the book in September.

[Wednesdays, 9.30 to 10.20 A. M.]

3 *Systematic Societology.* 1 hr. both terms.

A continuance and extension of the course under 6 below. Spencer's *Principles of Sociology.*

[Wednesdays, 10.30 to 11.20 A. M.]

4 *The Industrial Revolution of the Renaissance Period.*
2 hrs. both terms.

A chapter in the history of the development of the industrial organization. The industrial element in the renaissance. The transition from medieval to modern society in its causes, new elements, effects on classes, effects on economic doctrine. Changes imposed on the industrial organization; world commerce, land tenure, handicrafts, banking and money.

[Not given in 1896–97.]

Professors HADLEY and FISHER :—

*13 *Economics* (*General course*). 3 hrs. both terms.

A thorough course in the elements of the science. Two hours a week will be devoted to text-book work with Professor Fisher, involving recitation-room drill in the general principles. The third hour will be occupied by a lecture from Professor Hadley on the application of these principles to financial and industrial problems of the day. Hadley's *Economics* will be used as the text-book.

Professor BLACKMAN :—

14 *Social Science.* 2 hrs. both terms.

An introduction to the study and literature of Sociology, followed by a discussion of some important social problems, such as: Socialism, Communism, Individualism, and Anarchism, Races in the United States, Immigration, the City, the Wage System, the Defective and Dependent Classes, the Causes, Prevention, and Punishment of Crime, and Illiteracy.

15 *A Historical Study of Marriage and the Family.* 1 hr. both terms.

Assistant Professor SCHWAB :—

16 *Finance.* 2 hrs. both terms.

An advanced course of lectures upon applied economics. The course will cover the principles of money and credit, with illustrations from the monetary, banking, and financial history of the world, and of the United States in particular; it will cover less minutely the subject of public finance, namely the systems of government revenue and expenditure, (see course 19 on United States Public Finance.)

A third hour per week is devoted to a quiz exercise, and is primarily intended for undergraduates, though graduates are admitted if they desire the additional instruction.

The following books will be used: Jevons, *Money and the Mechanism of Exchange* (International Scientific Series, or in pamphlet form in the Humboldt Library of Science Series, No.'s 50 and 51), Dunbar, *On Banking*, White, *Money and Banking*, Sumner, *Problems in Political Economy*, and, perhaps, Adams, *Public Debts*.

[Mondays and Thursdays, 11.30 A. M.]

17 *United States Industrial History.* 2 hrs. both terms.

An advanced course of lectures upon the history of the tariff legislation and the industrial development of the United States, on the modern industrial organization, on corporations, the principles of international trade, and on the principles involved in investment securities.

As in course 16, a third hour per week is devoted to a quiz exercise, which, though primarily intended for undergraduates, is open to graduates if they desire the additional instruction.

Books to be used: Taussig, *Tariff History of the United States*, 1892, Bastable, *Commerce of Nations*, Sumner, *Investment Securities*, Hadley, *Railroad Transportation.*

[Tuesdays and Fridays, 11.30 A. M.]

18 *United States Financial History.* 1 hr. both terms.

A course intended to give practice in carrying on original investigation. During the first term some recent book on money, banking or some kindred subject, like *Coin's Financial School* or Brough's *Natural Law of Money* will be read and informally discussed. During the second term, current questions will be discussed, each member of the class selecting some field for observation, like current legislation or the markets, and offering a report at stated intervals.

[Wednesdays, 12.30 P. M.]

19 *United States Public Finance.* 1 hr. 1st term.

A short course of lectures, applying the principles of public finance to the finances of the United States, federal, State and local. Leading topics will be: the sphere of expenditure and revenue of the different political units of the United States; their fiscal policy; an historical and critical study of their forms of revenue; the American system of State and local taxation in theory and in practice; State and local debt-financiering.

[Tuesdays, 10.30 A. M.]

20 *The Finances of the Confederate States*, 1861–1865. 1 hr. 2d term.

A course of lectures on selected chapters from the financial history of the Confederate States. Leading topics will be: the tax versus the loan policy in the North and South during the Civil War; the inflation movement; constitutional questions involved in the war; the States-Rights and the Union sentiments in the South; the banks and the industries. These topics

will necessarily be treated from the standpoint of economic rather than political history. If desired, an opportunity will be given for individual research.

[Tuesdays, 10.30 A. M.]

Assistant Professor IRVING FISHER :—

*21 *Theory of Economics (advanced course).* 2 hrs. both terms.

This course is designed for those who wish to make a special study of economic principles and of the outlying problems of economic science. It is open only to those who have taken course 13 or its equivalent. Mathematical methods are employed where needful. As preparatory to the use of these methods, the course begins with lectures on elementary calculus. These are followed by the analyses of: I, value and prices; II, general price levels; III, effects of "appreciation" and "depreciation" with statistical discussion; IV, bimetalism and other currency schemes with especial reference to the experience of France, Austria, and India; V, international trade; VI, capital and interest; VII, distribution.

Marshall's *Principles of Economics* is used as a basis. Reading is also assigned in other works, especially recent investigations. Special papers are read by members of the class.

[Wednesdays and Saturdays, 11.30 A. M.]

*22 *Statistics.* 2 hrs. both terms.

An elementary course in the use and abuse of statistics. The sources and reliability of statistical data are discussed, and the methods of distinguishing true and false inferences are pointed out.

Mayo-Smith's *Statistics and Sociology* will be used as a basis.

[Wednesdays and Saturdays, 8.30 A. M.]

Professor PHELPS :—

*23 *Law.* 2 hrs. 2d term.

American constitutional law. International law. The instruction is by lectures based upon text books to be read in connection. This course is not intended merely for those who are contemplating the study of the law as a profession, but for all who may be interested in the subjects as a branch of general education.

[Fridays and Saturdays, 12.30 P. M.]

Assistant Professor BUCKLAND :—

*24 *Jurisprudence.* 2 hrs. 1st term.

The course consists of lectures and recitations on the following subjects : law in its relations to the origin, development, and government of political society ; origin and development of customary law ; relation of statute law to customary law ; formation and development of codes of law ; nature and origin of legal rights ; principles of the law governing rights in land ; principles of the law governing contract-rights ; the law of remedies for the violation of rights ; origin and procedure of courts of law and equity ; criminal law. The instruction in this course is designed to present an historical and philosophical view of the law in its great outlines, as common to all nations, and as particularly developed in the Anglo-Saxon race. In addition it is designed to show the practical methods which obtain in modern commercial transactions and the law as applied to them, and to point out the principal rights acquired, the duties owed, and the liabilities incurred in the every day conduct of affairs.

[Fridays and Saturdays, 12.30 P. M.]

Mr. FOX :—

25 *Comparative Municipal Government.* 1 hr. both terms.

The subject will be treated from a practical rather than a historical point of view, and will have a close relation to the future work of the student as a citizen. Some of the subjects considered will be the sphere and functions of city government, existing and proposed ; organization and methods of administration ; relation to the higher legislature ; attitude toward natural monopolies ; sources of revenue and methods of expenditure. The leading types of American city government will be described, together with a survey of European cities. Original reports upon city charters will be required, and occasional debates will be held on questions of municipal policy.

[Tuesdays at 4 or 5 P. M.]

B. HISTORY.

Professor BREWER :—

26 *Physical Geography in its relation to History.*
1 hr. 1st half of 2d term.

A course of about ten lectures discussing the following topics : the relations of man to the region he inhabits ; physical geography as related to the development of civilization ; natural aids to the defence and protection of communities ; natural facilities for commerce ; the influence of natural conditions as now modified by science and invention.

[Thursdays, 10.30 A. M.]

Professor WHEELER :—

27 *History of Treaties 1763–1815.* 1 hr. both terms.

28 *History of Institutions.* 2 hrs. both terms.

[Omitted in 1896–97.]

*29 *History of Europe since 1789.* 2 hrs. both terms.

Mainly political ; introductory to European politics of our day.

30 *Investigation of special topics in European History from 1789 to 1815.* 1 hr. both terms.

A general knowledge of the period, and ability to read French or German easily, are required.

[Wednesdays, 11.30 A. M.]

Professor C. H. SMITH :—

31 *American History (Colonial).* 2 hrs. both terms.

Exploration and early settlement of North America, and colonial history to the close of the Revolutionary War. Selected topics are assigned for individual study and class discussion.

32 *American History (National).* 2 hrs. both terms.

Political and constitutional history of the United States. The full course occupies two years, but the part given in either year may be taken for that year only.

Professor ADAMS :—

*33 *Medieval History.* 2 hrs. both terms.

The object of the course is to furnish an outline of the general history of Europe, and to follow the development of political, intellectual, and religious civilization through the period which lies between ancient and modern history.

34 *Medieval Institutions.* 2 hrs. both terms.

This course will extend through two years, and will consider the most important European institutions between the fall of Rome and the sixteenth century. The student will be made acquainted with the literature of the subjects treated and with the collections of original material. He will be expected to investigate selected topics in the sources and to report to the class upon them, and especial attention will be paid to the principles of criticism and to methods of research.

The second year's course (*b*) is given in 1896–97.

a. The first year's course will cover early German institutions; their modification under Roman influence; the development of the papal power and its special institutions; the institutions of Charlemagne's empire; the origin and the final forms of feudalism; and the beginnings of national governments. [Course *a* is not given in 1896–97.]

b. In the second year's course especial attention will be given to the growth of English institutions after the Norman conquest, the introduction of feudalism, the administrative system, the courts and the jury, taxation, parliament, and the limited monarchy. These will be studied in comparison with the corresponding institutions of the continental states, and the similarities and differences will be noticed. Important continental institutions imperfectly or not at all represented in England will also be studied.

Professors ADAMS and BOURNE :—

35 *Methods of Historical Research and Criticism.* 1 hr. both terms.

The first half of this course, under Professor Bourne, will consist of lectures and discussions on the principles of historical criticism, for which Bernheim's *Lehrbuch der historischen Methode* will serve as an outline. The second half, under Professor Adams, will consist of practical exercises in the study of selected historical documents, so arranged as to furnish exam-

ples of all the important points of method. The weekly exercises in this course may occupy two hours.

Students who take this course are advised to attend the early lectures of Professor Lang's course in Low Latin, course IV. 43.

Professor BOURNE :—

36 *English History from the accession of the Tudors. Constitutional and political.* 2 hrs. both terms.

Especial attention will be given to the Constitutional history of the Puritan Revolution. This course is designed for those who have a good knowledge of the general history.

The work will consist in large part of a systematic study of the documents contained in Prothero's *Statutes and Documents*, 1559–1625, and Gardiner's *Constitutional Documents of the Puritan Revolution*, 1628–1660. The constitutional history of the earlier Tudors and of the period following the Restoration will be covered in lectures and assigned readings. From time to time the students will present reports on selected topics.

[This course is given every other year. It will be omitted in 1896–97.]

37 *The Renaissance.* 2 hrs. 1st term.

This course will be devoted to the study of the political and intellectual life of Italy from 1250 to 1520. The revival of classical learning and ideals will receive special attention. Students desiring to avail themselves of this course as an introduction to the history of modern literature or of classical philology will be assigned work in these phases of the subject.

[Tuesdays and Thursdays, 3 P. M.]

38 *The Protestant Revolution and the Catholic Reaction.* 2 hrs. 2nd term.

This course is a continuation of 37 and will discuss the intellectual and political aspects of the Reformation period ; so far as practicable the work of the students will be based on the study of the sources.

[Courses 37 and 38 alternate with 36.]

39 *History of Europe from the Reformation to the French Revolution.* 2 hrs. both terms.

This course will deal mainly with the growth of the European State system, the influence upon Europe of the colonial expansion, and the political and intellectual movements, preparatory

to the Revolutionary epoch. Some attention will also be given to the economic history of the period. The course will consist of one lecture and one class exercise each week. The work of the class exercise will be devoted to the discussion of topics illustrated in Schilling's *Quellenbuch zur Geschichte der Neuzeit* and to papers by the students. A good reading knowledge of German is indispensable for this course.

[Wednesdays, 12.30 P. M.]

Mr. F. W. WILLIAMS :—

*40 *Ancient Oriental Nations from the earliest times.* 2 hrs. both terms.

A comprehensive survey of the beginnings of civilization and its development in the principal nations of antiquity, including Babylonia, Assyria, Egypt, Phœnicia, and Parthia. This course illustrates the connection of Biblical and profane history, discusses the origin of political and social institutions, religions, the arts and sciences, and the Asiatic source of European civilization, and constitutes an introduction to the study of history.

[Mondays and Thursdays, 12.30 P. M.]

*41 *Modern Asiatic History.* 2 hrs. both terms.

A course embracing successively the regions of India, Japan, China, and Central Asia, with particular regard to their history since the 17th century, their governments, and their relations with European powers. The culture, faiths, and sociology of existing nations in the Far East are here considered with a view of interesting those whose historical knowledge is confined to the Western world. The course is designed to stimulate further reading by students in special topics suggested by the instructor, upon which written essays will be presented and discussed. It also offers an opportunity for those who contemplate missionary careers to acquaint themselves with the political and social condition of the more important foreign missionary fields.

[Tuesdays and Wednesdays, 12.30 P. M.]

The following course in the Divinity School is also open, by the special permission of Professor Fisher, to graduate students :

Professor FISHER :—

42 *General Church History.* 3 hrs. both terms.

This course comprises the following topics: The nature, divisions, and sources of Church History, with a review of the literature on the subject; the old or preparatory dispensation in its relation to Christianity; the condition of the Graeco-Roman world at the introduction of the Gospel; the establishment of Christianity, and the conflicts of the apostolic age; the spread of Christianity, including especially the conversion of the Roman Empire and of the Teutonic nations; the changes in ecclesiastical polity in the early centuries; the organization of Latin Christianity under the Papacy; the relations of the Papacy and the Church to civil society in the Middle Ages; the Protestant Reformation, with its causes and the systems of polity adopted by the different Protestant churches; Christian life, and its characteristic features in the successive eras (including the rise and subsequent history of monasticism); the history of Christian worship.

[Mondays, Thursdays, and Saturdays, 10 A. M.]

For courses on the Greek and Roman Historians, see Classical Philology, IV, courses 4 and 42. For a course in Roman Law, see IV, 45.

43 *Historical Seminary.*

An advanced course in the methods of historical research will be conducted by the professors of History. The members of the course will prepare papers upon topics selected with especial reference to the possibility of a comparatively brief treatment based upon a full examination of the existing sources. The opening sessions of the year will be devoted to bibliographical work, and to questions of difficulty which may arise in the preparation of the papers. The later sessions will be occupied with the reading of the papers and their criticism by the members of the course and by the professor in whose department the topic falls. This criticism will have especial reference to the handling of the sources, the constructive method employed, and the validity of the results. The members of this course must have taken course 35 or be able to show an equivalent preparation.

THE POLITICAL SCIENCE CLUB meets fortnightly for the reading and discussion of papers, and for reports on current literature. A convenient room in White Hall (No. 11) is set apart for its use, and contains a departmental library which is accessible to the graduate students at all hours of the day. As the books are not allowed to be taken from the room, this library is particularly helpful to graduate students when they wish to refer to some authority which is temporarily withdrawn from the University library.

III. ORIENTAL LANGUAGES AND BIBLICAL LITERATURE

[NOTE.—Professor Hopkins has received leave of absence for the year 1896–97, and during this year his Sanskrit courses will be given by Professor Oertel.]

Assistant Professor OERTEL :—

1 *Elementary Sanskrit.* 3 hrs. both terms.

Instruction in Sanskrit, beginning with Whitney's *Sanskrit Grammar*, and passing on to Lanman's *Reader*. Exercises in composition.

2 *Advanced Sanskrit.* 3 hrs. both terms.

Selections from the Rig Veda and Brahmanic texts. The mss. and texts of the University library and of the American Oriental Society furnish ample material for original work.

3 *Advanced Sanskrit.* 2 hrs. both terms.

For third-year students. The details of the course will be determined later.

President DWIGHT :—

4 *The Book of Revelation.* 1 hr. both terms.

A course of lectures, with a study of the book in the original Greek.

5 *The First Epistle to the Corinthians.* 2 hrs. both terms.

A study of the epistle in the original Greek, with a discussion of the teachings and thoughts of the author, and of the subjects and questions considered in the epistle.

Professor SANDERS :—

*6 *Hebrew Poetry, Law, History, and Prophecy.* 2 hrs. both terms.

Selections from the short poems found in the historical books of the Old Testament, from the legal material of *Exodus*, *Deuteronomy* and *Leviticus*, from the histories of *Samuel* and *Kings*, and from the *Minor Prophets*, giving a general acquaintance with the varied contents of the Hebrew Bible. This course is intended as an introduction to historical, comparative and textual criticism.

[Mondays and Tuesdays, 10.30 A. M.]

7 *Hebrew Syntax.* 1 hr. both terms.

A careful study of the principles of Syntax, making class-room use of Harper's *Elements of Hebrew Syntax*, and of Driver's *Tenses*, with references to other authorities, and with some attention to comparative Syntax. During the year a variety of passages in the Bible are read critically with reference to a syntactical interpretation.

8 *Textual Criticism of the Old Testament.* 1 hr. both terms.

A close textual study of some book of the Old Testament, making use of the apparatus of the lower criticism to restore the original text. For 1895–6 the basis of work has been the book of Micah. At the beginning and at the close of the year's work lectures are given on the apparatus, methods and history of O. T. criticism.

[Omitted in 1896–97.]

9 *Arabic Poetical and Philosophical Literature.*
2 hrs. both terms.

The first half of the year is devoted to the *Mu'allaqât* and other poetical literature, read both with and without the unpointed commentary. In the second half of the year the class will make constant use of the valuable Salisbury collection of mss. and texts in the University library. Lectures on Arabic literature will be given at intervals throughout the year.

[Tuesdays, 8.30–10.30 A. M.]

10 *Assyrian and Babylonian Inscriptions.* 2 hrs. 1st half year.

Selected inscriptions from the annals of the later Assyrian kings, and of the Neo-Babylonian empire, the Creation and Deluge tablets, etc.

[Thursdays, 8.30–10.30 A. M.]

11 *Assyro-Babylonian History and Literature.*
2 hrs. 2d half year.

A rapid reading with the use of Schrader's transliterated texts of the whole range of Babylonian and Assyrian historical inscriptions, the object being to gain a familiarity with the literature and the history, and a critical estimate of the relation of one to the other.

[Thursdays, 8.30–10.30 A. M.]

12 *Ethiopic.* 2 hrs. 1st term.

A survey of the elements and distinctive structure of the Ethiopic, using Praetorius's *Äthiopische Grammatik* and referring to Dillmann, and reading some portions of the chrestomathy and one or two of Bachmann's texts.

[Fridays, 10.30–12.30.]

13 *Comparative Semitic Grammar.* 2 hrs. 2d term.

The reading and discussion of Wright's *Comparative Grammar*, special themes being presented in lectures and class-papers.

[Fridays, 10.30–12.30.]

*14 *Biblical Literature.* 2 hrs. both terms.

A survey of the whole Bible in English from an historical and literary standpoint, the material being arranged, as far as possible, on the principle of chronological and historical connection. The course aims to promote (1) a classified and organized grasp of the contents of the English Bible, (2) a realization of the historical position and significance of the Hebrew people as a Western Asiatic and Semitic race, from the earliest time to the fall of Jerusalem, A. D. 70, (3) an appreciation of the Bible as literature and as a literary whole, (4) an intelligent attitude toward the various problems raised by Biblical criticism.

This is a two years' course and may be begun advantageously in either year.

The second year's course (*b*) is given in 1896–97.

a. The first year's course is a study of Old Testament history and literature down to the period of the Exile.

b. The second year's course is a similar study of the remainder of the Old Testament, of some of the Apocrypha and of the whole New Testament.

[Mondays and Wednesdays, 3 P. M.]

15 *English Bible Seminary.* 2 hrs. both terms.

An investigation course, intended to train men for patient and accurate investigation of Biblical questions. A variety of topics are considered. For the current year these have been the Synoptic question, and the chronological arrangement of the material of the Old Testament by recognizable sections.

The course is very informal, the class meeting at irregular intervals to report and compare results of individual study of themes assigned by the instructor.

[Tuesdays, 4–6 P. M.]

Dr. CREELMAN :—

16 *Beginning Arabic.* 2 hrs. both terms.

During the first term the principles of the language are mastered in connection with the careful reading of *Genesis* i-iii. During the second term until Easter the class reads rapidly in easy prose Arabic; after Easter from selected Suras of the first Meccan period.

[Tuesdays and Thursdays, 2 P. M.]

17 *Beginning Assyrian.* 2 hrs. both terms.

The year's work includes the mastery of the more common cuneiform signs, the principles of the language, the rapid reading of much transliterated material, the careful reading of selected portions of the texts of Tiglathpileser, Shalmaneser, and Sennacherib in the cuneiform, together with lectures on the outlines of Assyro-Babylonian history and literature.

[Thursdays and Fridays, 4 P. M.]

18 *The Book of Ezekiel* (Hebrew). 2 hrs. 1st term.

The rapid reading of the book of Ezekiel in Hebrew with an interpretation of the thought accompanied by a discussion of its symbolism and its relation to the Hexateuchal problem.

[Thursdays and Fridays, 5 P. M.]

19 *The Book of Jeremiah* (Hebrew). 2 hrs. 1st term.

[Omitted in 1896–97.]

20 *Biblical Aramaic.* 2 hrs. 2d term.

A study of the elements of Aramaic, together with a critical study of the books of Ezra and of Daniel and an interpretation of the literary form and contents of the book of Daniel.

[Thursdays and Fridays, 5 P. M.]

21 *The Three Major Prophets* (English). 1 hr. both terms.

A careful study of the three prophetic books of Isaiah, Jeremiah, and Ezekiel, with especial reference to their historical setting, their contents chronologically arranged, their literary form and their historic sequence of ideas.

[Mondays, 2 P. M.]

22 *The Minor Prophets* (English). 1 hr. both terms.

[Omitted in 1896–97.]

23 *Messianic Prophecy* (English). 1 hr. both terms.

A survey of the Messianic element in the Old Testament, intended to show the historical development of the conception and the various forms in which it was embodied.

[Wednesdays, 2 P. M.]

24 *Old Testament Wisdom-Literature* (English). 1 hr. both terms.

[Omitted in 1896–97.]

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25 *Sight Reading in Hebrew.* 1 hr. both terms.

The class reads at least two hours each week, but the work counts as the equivalent of one hour. In connection with the reading of the Hexateuch or the Histories, special attention is paid to the literary analysis into sources.

[Mondays, 3–5 P. M.]

26 *The Qur'ân.* 2 hrs. 1st half year.

Interpretation of the early Meccan suras and of selections from those of other periods, accompanied by a study of the life of Muhammad.

[Wednesdays and Fridays, 10.30 A. M.]

27 *Arabic Prose Literature.* 2 hrs. 2d half year.

A rapid reading of selections from the Arab historians and from the *Thousand and One Nights*, followed by a close study of the *'Ajurrâmiya*. Lectures are given on the history of Islâm.

[Wednesdays and Fridays, 10.30 A. M.]

28 *Syriac and the Textual Criticism of the New Testament.* 1 hr. both terms.

The principles of the language, using Nestle's *Syriac Grammar*, followed by reading in the Syriac New Testament. This course is intended as an introduction to New Testament textual criticism, and lectures will be given on its apparatus and methods.

[Thursdays, 3 P. M.]

Professor CURTIS :—

29 *The Book of Chronicles.* 1 hr. both terms.

A critical reading of the text of Chronicles, using Kittel's edition in the Haupt *Polychrome Hebrew Bible*.

[Mondays, 5–6 P. M.]

THE SEMITIC CLUB is composed of the above-mentioned instructors and of students who are qualified for independent work. Its meetings are held at regular intervals throughout the year. For 1896–97 it is proposed to make a study of extra-Biblical literature, especially of the Targums and the Talmud.

THE BIBLICAL CLUB draws its members from the students of the department of Biblical Literature and of the Divinity School. It holds stated monthly meetings, at which papers on subjects of interest to Biblical students are presented and discussed. The subjects for 1896–97 will be taken from the Apocryphal writings.

IV. CLASSICAL PHILOLOGY

Professor HOPKINS :—

1 *Introduction to Comparative Syntax.* 2 hrs. both terms.
[Not given in 1896–97.]

Assistant Professor OERTEL :—

2 *Linguistics.* 2 hrs. both terms.

A discussion and exposition of the general principles and chief problems of linguistic science; such topics as sound-change, change of significance, the fundamental facts of syntax, the relation of grammar to logic, the relation of linguistics to ethnography, the theories of the origin of speech, etc., are examined. Paul's *Principles of the History of Language* is used as a text book for part of the course and critically read. As time permits, some of the more important questions regarding the Indo-European branch are discussed. The course consists largely of lectures, but it requires outside reading and occasionally the preparation of short papers on assigned topics. No knowledge of Sanskrit is required for this course.

[Not given in 1896–97.]

3 *Phonetics.* 1 hr. both terms.

An introduction to general Phonetics on the basis of Sievers' *Grundzüge der Phonetik*, 4th ed., Leipzig, 1893, and their application to the English, German, and Latin sound-systems. Sweet's *Primer of Phonetics*, Oxford, 1890; Laura Soames's *Introduction to Phonetics*, London, (Swan, Sonnenschein & Co.); Vietor's *Elemente der Phonetik und Orthoepie des Deutschen, Englischen u. Französischen*, 2d ed., Heilbronn, 1887; O. Bremer's *Deutsche Phonetik*, Leipzig, 1893; and Seelmann's *Die Aussprache des Latein*, Heilbronn, 1885, are chiefly used.

Professor PERRIN :—

4 *Herodotus, and the Tradition of the History of the Persian Wars from Herodotus to Plutarch.* 3 hrs. both terms.

Lectures and seminary exercises.

(*a*) The History of Herodotus will be read entire, and all data collected which bear upon the author's plan and method of composition, his sources and the use made of them. Discussions

and papers will follow, based largely on Hauvette's *Hérodote* (Paris, 1894). Stein's annotated edition of Herodotus (Berlin, 5 small volumes, which may be bound in two) will be used.

(*b*) The *Themistocles* of Plutarch will be read and critically analyzed to illustrate historical tradition from Herodotus through Thucydides to Plutarch. The text-books required will be Bauer, *Plutarch's Themistokles* (Leipzig, 1884); Schaefer, *Quellenkunde der griechischen und römischen Geschichte* (Leipzig, 1889 and 1885). Discussions and papers will be based largely on Bauer's *Themistokles* (Merseburg, 1881), Busolt's *Griechische Geschichte*, Vol. II. (Gotha, 1895). No student should take the course without some reading knowledge of French and German, as well as the ability to read Latin and Greek prose fluently.

[Mondays, Wednesdays, and Fridays, 11.30 A. M.]

*5 *Aristophanes. The Testimony of the Old Athenian Comedy to the Political and Social Life of its Time.*

3 hrs. both terms.

The *Acharnians*, *Knights*, *Wasps*, and *Birds*, will be read entire, together with extracts from the other plays, and a few of the more notable Fragments.

[Omitted in 1896–97.]

Professor SEYMOUR :—

6 *Pindar.* 1 hr. both terms.

The odes of Pindar will be studied with specially qualified students, with exercises in the critical treatment and interpretation of the text, as a Greek *Seminary* course. The class will meet once in two weeks for a two-hours' session.

7 *Homer.* 2 hrs. both terms.

Introduction to the critical study of Homer. Lectures on the history of Homeric study, Epic poetry, the composition and transmission of the poems, life in the Homeric times in its various aspects; Homeric language and verse. Followed by a familiar but critical interpretation (and exercises in interpretation and criticism) of portions of the *Odyssey*, and of the later Greek epics.

[Wednesdays, 4 to 6 P. M.]

8 *The Greek Orators.* 3 hrs. both terms.

A study of Greek Oratory, beginning with the orations of Isaeus, and including some of the private orations of Demosthenes, with reference to Athenian life and law, as well as to the development of Attic eloquence.

[Mondays and Thursdays, 8.30 to 10 A. M.]

9 *Aeschylus.* 3 hrs. both terms.

The extant plays of Aeschylus will be read. The instructor will interpret the *Prometheus* and parts of other plays. The members of the class will interpret in turn.

[Omitted in 1896–97.]

10 *Plato.* 2 hrs. both terms.

The *Republic* and the portions of the other dialogues which are most important for its elucidation.

[Omitted in 1896–97.]

*11 *Homer, Theocritus, and the Lyric Fragments.* 2 hrs. both terms.

The works of these poets will be read rather rapidly, with more attention to their characteristics as literature than to specially linguistic and grammatical questions.

[Mondays and Fridays, 3 P. M.]

*12 *The Phaedo of Plato.* 2 hrs. 1st term.

Introduction to the literary and philosophical study of Plato; observing carefully the dramatic character of the work, the connection of thought, and the marks of division of the argument, with special attention to the characteristics of Plato's literary style.

[Tuesdays and Thursdays, 3 P. M.]

*13 *Aristotle's Nicomachean Ethics.* 2 hrs. 2d term.

Books i–iv and x, with a study of Aristotle's methods of research and statement.

[Tuesdays and Thursdays, 3 P. M.]

*14 *Pindar.* 2 hrs. 2d term.

[Omitted in 1896–97.]

*15 *Plato.* 2 hrs. both terms.

The *Gorgias* and several of the minor dialogues.

[Omitted in 1896–97.]

Professor GOODELL :—

16 *Sophocles.* 2 hrs. both terms.

Reading of the seven extant plays with special attention to the artistic form, including the poet's literary style, treatment of the myths, management of the action, use of metres, and the like. A brief introduction to Greek rhythmic and metric is given by lectures.

This course is intended for Graduates and for Juniors and Seniors who have done superior work in Greek. Each student should have the complete edition of Sophocles by Schneidewin-Nauck with German notes (Weidmann), or that by Wunder-Wecklein with notes in Latin (Teubner). The edition in seven volumes by Jebb (Macmillan) is on some accounts better, but is expensive.

[Tuesdays and Saturdays, 9.30 A. M..]

*17*a* *Introduction to Greek Archaeology.* 1 hr. both terms.

An outline study of Greek pottery, architecture, and sculpture, with some attention to gems, metal-work, coins, figurines, and painting, as illustrated by existing examples. The subject is taken up by periods, to show the historical development of Greek artistic production and its relation to other phases of Greek life and to modern art. Photographs, the large collection of archaeological works belonging to the Library, the University coin-collection, and the casts of the Art School, are freely used in lectures and are made available for private stndy.

[Omitted in 1896–97.]

*17*b* *Introduction to Greek Archaeology.* 2 hrs. both terms.

The same as 17*a* with the addition of another hour, to be devoted to individual work on special topics. A good reading knowledge of French or German is essential.

[Omitted in 1896–97.]

Professor REYNOLDS :—

18 *Aristotle's Poetics. Literary Criticism in Ancient Times.* 1 hr. both terms.

Interpretation of the *Poetics* and parts of the *Rhetoric*, with selections from Plutarch, Pseudo-Longinus, and Lucian.

19 *Late Greek Poetry.* 1 hr. both terms.

This course will include a survey of Alexandrian and later Greek poetry. Reading of the mimes of Herondas, with selections from the Anthology, and from the hymns of Callimachus, and other fugitive poetry.

*20 *Euripides.* 2 hrs. both terms.

A reading course with reference to Euripides's poetic and dramatic quality. Five or six plays will be read. Discussion of the poet's relation to his own times, style, metres, dramatic innovations, and influence on the Roman and the modern dramatists, with occasional lectures.

[Tuesdays and Fridays, 12.30 P. M.]

*21 *Lucian.* 2 hrs. both terms.

A general-reading course in prose, with discussion of the life and times of Lucian, and of his influence upon modern literature. The *Dream*, *Charon*, *Timon*, *Angler*, and *True History* will be read with many minor pieces, including the *Dialogues of the Gods* and *Dialogues of the Dead.* The Teubner text will be used, together with Williams's *Selections from Lucian.*

[Omitted in 1896–97.]

Professors REYNOLDS and OERTEL :—

*22 *Greek Inscriptions.* 3 hrs. both terms.

a. Attic Inscriptions, with reference to the history of the alphabet, grammatical pecularities, formulae, and historical content. The student is familiarized with the reading of inscriptions in their original form (by means of paper squeezes).

b. Greek Dialect Inscriptions will be read chiefly from the grammatical side, together with the fragments of the lyric poets, with special reference to the help that may be derived from the inscriptions for the constitution of their text. The text-books are Cauer's *Delectus inscriptionum Graecarum*, and Bergk's *Anthologia Lyrica.*

[Mondays, Thursdays, and Saturdays, 10.30 A. M.]

Mr. KITCHEL :—

23 *The Choephori of Aeschylus, The Electra of Sophocles, and The Electra of Euripides.* 2 hrs. 2d term.

These plays will be read and carefully compared, with the intent of noting the development of the drama thus exhibited, both in chorus and in plot. The points of similarity and dissimilarity between the ancient and the modern drama are sought for.

Dr. FAIRBANKS :—

24 *Greek Worship and Belief.* 2 hrs. both terms.

Readings from Pausanias. Lectures and seminary exercises (*a*) on forms of Greek worship and (*b*) on the types of Greek gods in worship, in literature, and in art.

25 *Hellenistic Greek.* 1 hr. both terms.

Readings from the Septuagint; characteristics of Hellenistic Greek; relation of the Septuagint to the Hebrew text of the Old Testament.

[Wednesdays, 4 P. M.]

26 *Inscriptions relating to Greek Religion.* 1 hr. both terms.

Dittenberger's *Sylloge Inscriptionum Graecarum.* Part II, ii, *res sacrae;* selections from Part I.

[Omitted in 1896–97.]

Mr. BROWNSON :—

*27 *The Greek Theater.* 1 hr. both terms.

Dealing with the plan and structure of the theater, with special reference to the stage question, and with scenic antiquities in general. The subject will be studied from both the archaeological and the literary points of view. The results of recent excavations will be discussed in lectures, and illustrative extracts will be read from tragedy and comedy.

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Alternate exercises in prose composition and the reading at sight of selections from Xenophon. The course is designed especially for those who intend to teach.

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[Omitted in 1896–97.]

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Dealing with the plan and structure of the theater, with special reference to the stage question, and with scenic antiquities in general. The subject will be studied from both the archaeological and the literary points of view. The results of recent excavations will be discussed in lectures, and illustrative extracts will be read from tragedy and comedy.
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Alternate exercises in prose composition and the reading at sight of selections from Xenophon. The course is designed especially for those who intend to teach.
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[Saturdays, 9.30 to 11.30 A. M.]

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[Omitted in 1896–97.]

31 *Early Latin.* 1 hr. both terms.
Study of inscriptions and of the ante-classical literature, based on Allen's *Remnants of Early Latin* and Merry's *Fragments of Roman Poetry.*

The course is largely philological and critical, dealing with the development of forms, constructions, and literature.

32 *Latin Composition.* 1 hr. both terms.
Written and oral exercises in Latin based on Cicero's Letters.

33 *Latin Philology.* 1 hr. both terms.
In this course such features of the language are studied as its historical development and decay, relations to other languages, forms and syntax, pronunciation, adaptation to literature, etc.
[Omitted in 1896–97.]

*34 *Hexameter Poetry.* 2 hrs. both terms.
Development of poetic forms and styles in Latin, with studies in Ennius (the *Annals*), Lucretius, and Horace (the *Epistles*.)
[Tuesdays and Fridays, 10.30 A. M.]

*35 *Prose Latin of the 1st Century.* 3 hrs. both terms
Tacitus (the *Annals*), Suetonius, and Velleius Paterculus.
[Omitted in 1896–97.]

*36 *Roman Oratory.* 2 hrs. both terms.
Cicero (*de Oratore*), Quintilian (X and XII), and Tacitus (*Dialogus*).
[Omitted in 1896–97.]

*37 *Roman Private Antiquities.* 2 hrs. both terms.
Cicero's and Pliny's Letters.
[Mondays and Thursdays, 10.30 A. M.]

Professors H. P. WRIGHT and MORRIS :—

*38 *Satire and Comedy.* 2 hrs. both terms.
Juvenal and Martial. Plautus : three or four plays. With special attention to literary history, form, and influence.
[Mondays and Thursdays, 9.30 A. M.]

*39 *Lyric and Elegiac Poetry.* 2 hrs. both terms.
Horace (*Odes* iii and iv), Latin Hymns, Catullus, Tibullus, and Propertius. With special reference to literary qualities.
[Omitted in 1896–97.]

Professor MORRIS and Dr. INGERSOLL :—

40 *Historical Syntax.* 2 hr. both terms.
Lectures on the history of work in Latin syntax during this century and on the principles and methods of the historical

investigation of the modes and tenses; discussion of text-books and of a few good specimens of work in this field; outline of the syntax of the modes and tenses from the historical point of view.

The lectures will be accompanied and followed by a study of the *quia* clause, the material for which will be collected and examined by students who take the course.

[Tuesdays, 2–4 P. M.]

Professor MORRIS :—

41 *Plautus.* 1 hr. both terms.

Lectures introductory to the study of Plautus, to be followed, if time allows, by work upon idioms and phraseology.

[Fridays, 5 P. M.]

*42 *The Conspiracy of Catiline.* 1 hr. both terms.

A study of the conspiracy of Catiline from the sources, involving the reading of Cicero *in Catilinam i–iv* and *pro Murena*, Sallust's *Catilina*, Asconius on the oration *in Toga Candida*, and some chapters of Dio Cassius, Plutarch, and Appian.

Each session will occupy two hours, and little outside work will be required.

[Omitted in 1896–97.]

Assistant Professor LANG :—

43 *Low Latin.* 1 hr. both terms.

The aim of this course, which extends over two years, is to give an historical account of the popular speech of Rome and of the Roman provinces, and also an outline of its grammar and syntax, as it is disclosed to us by classical Latin, the testimony of the Latin grammarians, inscriptions, medieval documents, and the consensus of the Romance languages.

The first year's course will be taken up with lectures on the history and the grammar of Low Latin and, as far as time permits, with the reading of a Low Latin text. For the present the following will be used: J. F. Gamurrini, *S. Silviae Aquitanae Peregrinatio ad Loca Sancta.* Editio altera. Romae 1888.

[Mondays, 3.30 to 4.30 P. M.]

44 *Low Latin* (Second Year). 1 hr. both terms.

The second year's course will be taken up with the interpretation of Low Latin texts by the student and the study of special subjects assigned by the instructor.

[Thursdays, 3.30 to 4.30 P. M.]

Dr. ROBINSON :—

*45 *Roman Law.* 2 hrs. both terms.

This course is intended to benefit those who desire an insight into Roman law as part of a liberal education as well as those who contemplate the study of law as a profession. The work consists of lectures, assigned readings, and recitations upon lectures and readings.

The text of the *Institutes* of Justinian will be translated, the instructor explaining particularly the technical expressions of lawyers' Latin and lecturing upon the titles which embrace the most important principles of Roman jurisprudence. The class is not required to do philological work in this course. The study of the *Institutes* will be prefaced by lectures upon the history of Roman legislation and supplemented by reference to selected titles of the *Digest* and the commentaries of Gaius.

The Teubner text of *Justiniani Institutiones*, edited by Huschke, is used in the class-room.

[Mondays and Thursdays, 12.30 P. M.]

Assistant Professor OERTEL :—

46 *The Italic Dialects and the Archaic Latin inscriptions.* 1 hr. both terms.

Those who intend to take this course should provide themselves with Johannes Zvetaieff's *Inscriptiones Italiae inferioris dialecticae in usum praecipue academicum.* Leipzig, 1886 (8 marks).

Dr. INGERSOLL :—

*47 *Latin Literature.* 2 hrs. both terms.

An attempt to trace the history and development of the main departments of Latin Literature. Selections from the principal writers will be read, with informal lectures, and perhaps some manual (*e. g.* Bender's) will be used. The selections will be so chosen as not to interfere with or duplicate work in other courses.

Text-book : Smith's *Latin Selections.*

[Tuesdays and Thursdays, 5 P. M.]

For a course in Greek Philosophy, see course I, 29.

Mr. Albert S. Wheeler's course on Roman Law, in the Law School, is open to classical students under certain limitations.

The Phelps Memorial Building now in process of erection, which will be ready for occupancy in the autumn of 1896, has been assigned to the use of the Classical Department of the University. It contains, in addition to twelve ordinary class-rooms, two seminary rooms, and offices for instructors, a large apartment for the library and reading-room of the Classical Club. This room is intended to become the headquarters of advanced students in classical philology, and to furnish to them the advantages of a good private library. It already contains over twelve hundred volumes, of texts, commentaries, works on antiquities, etc., as the germ of a departmental library. The books most needed for the immediate work in the classical courses for the present year are to be found there. The Club meets every Saturday and spends that evening in reading and discussing the work of some classic author, with reports and papers in the field of Greek and Latin Philology. During the year 1896–97 the Iliad of Homer and the Letters of Cicero will be studied.

Graduate students of this University, with the approval of the classical instructors, are admitted to the free enjoyment of the privileges of the American School of Classical Studies at Athens.

*11 *Dante's Life and Works.* 1 hr. both terms.

a. The *Vita Nuova*, *the Convito*, the *Canzoniere.*
[Fridays, 9.30 A. M.]

b. The *Divina Commedia.*
[Course *b* will be omitted in 1896–7.]

The editions of Fraticelli will be used.

*12 *Petrarch.* 1 hr. both terms.

This course will comprise a critical reading of portions of Petrarch's *Rime* and a study of his influence as the leader of the humanistic movement in Italy. It will be open only to those who have already studied Dante.

G. Mestica's critical edition of *Le Rime di Francesco Petrarca* (Florence 1896) will be read.

[Wednesdays, 11.30 A. M. to 12.30 P. M.]

Mr. TAYLOR :—

*13 *Systematic Readings in the French Literature of the XVIIth Century.* 2 hrs. both terms.

Assistant Professor CAMERON :—

14 *Molière: His Life and Works.* 1 hr. both terms.

(*a*) Theories of Molière's life, (*b*) Dramatic indebtedness, (*c*) Dramatic development, (*d*) Critical study, (*e*) Purpose of his social satire, (*f*) Imitators. Collateral reading.

[Mondays, 10 A. M.]

Professor PALMER :—

15 *Gothic, Old High German, and Old Saxon.* 2 hrs. both terms.

An introductory course, intended especially for those who intend to study historically German or English.

The first half-year will be given to the study of Gothic and its phonological relations to both earlier Indo-Germanic and later Germanic languages. Braune's *Gotische Grammatik* or Wright's *Gothic Language Primer*, Heyne's *Ulfilas*, Streitberg's *Urgermanische Grammatik*, and Henry's *Comparative Grammar of English and German.*

The second half-year will be given to the study of Old High German and Old Saxon. Braune's *Althochdeutsche Grammatik* and *Althochdeutsches Lesebuch*; Gallée's *Altsächsische Grammatik*; Behaghel's *Hêliand.*

[Omitted in 1896–97.]

16 *Old Norse (Icelandic).* 2 hrs. both terms.
Grammar, and reading in the Sagas and the Elder Edda.
[Omitted in 1896–97.]

*17 *Scientific German.* 2 hrs. both terms.
Rapid reading of extracts and monographs treating of subjects in natural science.
[Wednesdays and Saturdays, 9.30 A. M.]

*18 *Goethe, Works and Life.* 3 hrs. both terms.
After an outline study of Goethe's life and development in connection with his lyric poems, his early prose writings, and his principal dramas, particular attention is given to *Faust I.* and *II.*, the later prose works, and Goethe's important utterances in letters, journals, and conversations.
[Mondays, Wednesdays, and Thursdays, 10.30 A. M.]

*19 *History of German Literature, 1648–1832.* 2 hrs. both terms.
The development of German literature is studied from the close of the Thirty Years' War to Goethe's death.
[Tuesdays and Fridays, 9.30 A. M.]

Assistant Professor GRUENER :—

20 *Middle High German :—* 2 hrs. both terms.
Hartmann. *Nibelungenlied.* Selected poems of Walther von der Vogelweide. Lectures and papers.

21 *German Literature of the Reformation Period (1500–1648.)* 2 hrs. both terms.
The development of German literature is studied from the beginning of the Reformation through the First Silesian School of poets and their contemporaries. Characteristic works of the important writers of the period are read chiefly for literary purposes, though also with reference to the political, social, and religious conditions of the times.

*22 *Schiller, Works and Life.* 2 hrs. both terms.
Rapid reading of poems, plays, and prose writings of Schiller, with study of his life.
[Tuesdays and Fridays, 10.30. A. M.]

Mr. W. A. ADAMS :—

*23 *Prose of Modern German Historians and Critics.* 2 hrs. both terms.

Rapid reading of selections from historical and political writings, and from literary criticism.

[Mondays and Thursdays, 10.30 A. M.]

24 *Goethe's Dichtung und Wahrheit.* 1 hr. both terms.

This course will aim at two things: a study of the autobiography itself and through it a study of Goethe.

The text will be read privately. In the class-room the work will be commented upon, explained, and discussed book by book and as a whole.

Topics for special investigation will be assigned and reports presented by members of the course.

Dr. CORWIN :—

25 *Lessing.* 2 hrs. both terms.

This course aims to acquaint the student with the regeneration of German literature through Lessing in his two-fold capacity of literary critic and poet. After an outline study of Lessing's life, and the literary and political conditions of the times, his works are read and discussed. Particular attention is given to the development of literary criticism and of the drama.

Professor LOUNSBURY :—

26 *The English Literature of the XIVth Century.*

Professor BEERS :—

27 *English Literature.* 2 hrs. both terms.

The history of English Romanticism from Thomson to Swinburne (1726–1890), with incidental study of the parallel movements in Germany and France. The instruction is given mainly by lectures.

This is an undergraduate course, but additional reading is required of graduate students, and special topics are assigned them for thesis work.

28 *Mediaeval Allegory.* 2 hrs. both terms.

A study of mediaeval allegory, including the *Romaunt of the Rose* (Chaucerian translation), *Piers Plowman*, and the *Purgatorio* of Dante, with two or three morality plays and passages from Hawes's *Pastime of Pleasure*. Candidates for this course should have a fair reading knowledge of Italian.

Professor Cook :—

The strictly graduate courses offered below are given according to circumstances and the needs of the graduate students actually in attendance; but special attention is given to the supervision of individual research along these and similar lines.

29 *Encyclopaedia and Methodology of English.*

This course is designed to acquaint the student with the more important branches of scholarship relative to the English language and literature, with a few of the representative books in each, and with the scope and method of research in this department.

30 *Theories of Poetry.*

A course in the theories of poetry in general, and in the principles of criticism applicable to its various departments, as the epic, dramatic, and lyric. Discussions and papers on the basis of standard works, such as Aristotle's *Poetics*, Sidney's *Defense of Poesy*, Addison's *Criticisms on Paradise Lost*, Boileau's *Art of Poetry*, Lessing's *Laokoon*, and others of similar character.

31 *Advanced Old and Middle English.*

A survey of the subject for those who are not yet prepared for minuter specialization.

32 *Seminary in Literature.*

A critical study of some representative writer. In 1894–95, Ben Jonson was the author selected; in 1895–96, Browning. Chaucer, Spenser, and Milton will indicate possibilities of future choice.

33 *Historical English Prosody.*

Schipper's *Englische Metrik* is adopted as the basis of study, but reference is made to the discrepant views of other authorities.

34 *Middle English Texts.*

A course in the interpretation of selected Middle English texts.

*35 *Old and Middle English.* 2 hrs. both terms.

An elementary course in the beginnings and earlier development of the English language and literature. The first term is devoted to Cook's *First Book in Old English*, and *Exercises in Old English*. In the second term this will be followed by more difficult Old English texts, and by the reading of selections from Chaucer and other Middle English writers for linguistic purposes.

[Mondays and Thursdays, 10.30.]

*36*a* *Shakespeare's English Historical Plays.* 2 hrs 1st. term.
Shakespeare's ten chronicle plays, and the English history they contain. Warner's *English History in Shakespeare's Plays*, will be used as an outline guide.
[Mondays and Thursdays, 9.30 A. M.]

*36*b* *Milton.* 2 hrs. 2d term.
Milton's chief poetical works, and, if time permits, some of the more interesting specimens of his prose. The study will be somewhat critical and comparative, with reference to the literary principles and models by which Milton was guided.

*37*a* *Tennyson.* 2 hrs. 1st term.
Critical study of selected poems. Tennyson's theory of life, literary art, and place among the poets of this century. Comparative readings in other authors, and frequent preparation of brief papers on assigned topics.
[Wednesdays and Saturdays, 8.30 A. M.]

*37*b* *Browning.* 2 hrs. 2d term.
Critical study of selected poems. Browning's theory of life, literary art, and place among the poets of this century. Comparative readings in other authors, and frequent preparation of brief papers on assigned topics.

Dr. PHELPS:—

38 *The Elizabethan Drama.* 2 hrs. both terms.
A purely literary course in the English drama, from the Mystery plays to the closing of the theatres in 1642. Specimen Mysteries, Moralities, Interludes, and early plays will be examined, and the writings of the following Elizabethan dramatists will be read: Greene, Peele, Lyly, Kyd, Marlowe, Jonson, Dekker, Chapman, Heywood, Middleton, Beaumont and Fletcher, Webster, Ford, Massinger, Shirley, Brome. Private reading will be assigned in histories, etc.
[Wednesdays and Saturdays, 10.30 A. M.]

39 *Seventeenth Century Literature.* 2 hrs. both terms.
A rather minute study of English literature from 1625 to 1660, exclusive of the drama. The poetry of Donne, Herbert, Crashaw, Herrick, Carew, Suckling, Lovelace, Waller, Marvell, Vaughan and others, will be read thoroughly; also the prose of Browne, Taylor, Fuller, Walton, etc. The works of Milton will be studied from the literary, political, and religious points of view. The social life of the times will also be examined.

MR. H. A. SMITH :—

*40 *Life and Manners in the Age of Pope.* 2 hrs. both terms.

Life of the times as reflected in anecdotic, periodical, and epistolary literature during the first half of the eighteenth century; authors and public opinion. Much outside reading along special lines will be expected.

[Mondays and Wednesdays, 5 P. M.]

VI. NATURAL AND PHYSICAL SCIENCE

Professors BRUSH, PENFIELD, and PIRSSON :—

1 *Mineralogy.*

Laboratory work and blowpipe analysis and the simple chemical methods for testing minerals. Laboratory work in determinative mineralogy. Lectures in descriptive mineralogy, on Thursdays and Fridays, at 2.30 P. M. Lectures in crystallography, supplemented by practical work in the measurement and calculation of crystals, and the determination of their optical and physical properties.

Opportunities are offered to those who are qualified to pursue original investigations in mineralogy and crystallography.

2 *Lithology (including Microscopical Petrography).*

History, origin, and classification of igneous rocks. Metasomatic and dynamic changes, including effects of dynamometamorphism. Laboratory methods of determination and study, chemical and microscopical. Field excursions are offered from time to time. The work is carried on mostly in the laboratory, with access to collections, and the course is open only to those whose previous training in mineralogy and geology has been sufficient to enable them to pursue the subject advantageously.

*3 *Elementary Structural and Dynamical Geology.* 3 hrs.

[Mondays, Wednesdays, and Fridays, 8 A. M.]

Professor DANA :—

4 *Mineralogy and Crystallography.* 1 hr. both terms.

Practical study of mineral species by means of blowpipe analysis and other methods; mathematical study of crystals by the methods of analytical and spherical trigonometry as also of their optical properties. The time is divided about equally between the two parts of the subject; the practical exercises are prolonged to cover two hours when but little outside preparation is called for. Additional opportunity will be given to those desiring it to gain facility in the determination of minerals.

This course can be most advantageously prosecuted by those having some knowledge of chemistry.

[Saturdays, 9.30–11.30 A. M.]

Professor WILLIAMS :—

5 *Geological Biology.*

The study of fossils in the laboratory, and with field-work so far as practicable, (1) as means of determining and classifying geological formations, (2) as evidence of the relations of organisms to their environment and of their evolution in the past.

For this course some knowledge of zoology is desirable; and for those who wish to take the course, and are not sufficiently well prepared in this direction, preliminary work in the zoology of living forms will be planned.

Instruction will be given also by informal lectures and the assignment of courses of reading of geological literature bearing upon the problems under investigation.

The number of hours and the specific line of study will be arranged by the instructor upon consultation in each case

6 *Philosophy of Life and Organism.* 1 hr. both terms.

A discussion of the facts and phenomena underlying the modern theories of evolution; and of the various forms of theory proposed to explain them.

[Wednesdays, 8.30 A. M.]

Professor BREWER :—

*7 *Physical Geography.* 3 hrs. first half year.

This course of lectures includes the elements of dynamical geology and of natural history, so far as is necessary for an understanding of the physical geography of the globe and the distribution of species.

[Tuesdays, Wednesdays, and Thursdays, 5 P. M.]

[For a course in Physical Geography in its relation to history, see Political and Social Science, course 26.]

Assistant Professor BEECHER :—

8 *Invertebrate Palaeontology.* Daily, 11 A. M., both terms.

(*a*) The study of extinct faunas by means of collections of fossils from typical localities.

(*b*) Systematic study of the structure, development, and affinities of one or more classes of fossil animals.

In the laboratory work, attention is given to modern methods of preparation and preservation of specimens. Open to those who have some previous knowledge of geology and zoology.

(*c*) Original investigation. Following *a* and *b*, an opportunity is given to take up some special subject for investigation and the discovery of facts new to science. The requisite material is available in the collections in the Peabody Museum. The work necessitates the frequent consultation of memoirs and scientific reports, occasional field-work, the use of the microscope, the preparation of thin sections, and other methods employed in practical investigation.

[Courses *a* and *b*: Laboratory work, three days per week, 2–5 P. M. Course *c*: Laboratory work, three days per week, 2–4 P. M.]

Professor A. W. WRIGHT :—

*9 *Physics.* 2 hrs. both terms.

First-year course. Two exercises each week, chiefly practical work in the Sloane Physical Laboratory, with measurements, especially in heat, light, and electricity, each exercise occupying two hours. As introductory to the laboratory practice, the exercises during a portion of the first term consist of recitations or discussions upon the theory and methods of physical measurements, the use of instruments, and other special topics. Laboratory facilities are also freely accorded to students of the course at other times than those of the stated exercises.

10 *Physics (Advanced course).*

Practical work in the Sloane Physical Laboratory, with instruction in the principles and methods of physical investigation, the processes and instruments of measurement, and the methods of computing and reducing results of observations. Special attention is paid to practical measurements in optics, electricity, and magnetism. The student is expected to make original investigations an important part of his work, and has the free use of the laboratory facilities for carrying them on.

For those who have already pursued course 9 or its equivalent.

Professor HASTINGS :—

11 *Physics.*

Laboratory work, supplemented by lectures on the theory of observation, with the method of least squares. Each year, some special department of physics is selected for detailed treatment in a course of lectures and conferences. Lectures on the theory of electricity and electrical instruments occupy six months. The use of the laboratory is at the command of the student at all times.

[For courses in Mathematical Physics, see Pure and Applied Mathematics, courses 8 and 11.]

Professor JOHNSON :—

12 *Agricultural Chemistry.* 2 hrs. both terms.

The atmosphere, water, and soil, in their various relations to vegetation ; tillage ; fertilizers ; rotation of crops ; irrigation.

13 *Organic Chemistry.*

Parafines and their derivations, two hours weekly throughout the year ; aromatic compounds, two hours a week during the first term. Systematic review of the various classes of carbon compounds, with study of substances that illustrate current chemical doctrines or are important in nature and in the arts. Experimental demonstrations.

Professor MIXTER :—

14 *Chemical Physics.*

Especially the methods employed in the determination of molecular masses and specific heat.

[The hours will be determined later.]

Professor GOOCH and Dr. BROWNING :—

The Kent Laboratory is open daily from 9 A. M. to 1 P. M., and from 2 P. M. to 5 P. M. to students taking strictly graduate courses. The hours for most of the undergraduate courses are given below.

*15 *Experimental Inorganic Chemistry.* 3 hrs. both terms.

Practical laboratory work, lectures, and written exercises. An introduction to elementary chemical theory, the use of symbols and equations, and the descriptive study of the elements and their compounds.

Dr. BROWNING :—

*16 *Qualitative Chemical Analysis.* 3 hrs. both terms.

Laboratory practice in the ordinary processes of qualitative analysis, with lectures.

[Mondays, Wednesdays, and Thursdays, 9.30–11.20.]

Professor GOOCH :—

*17 *Elementary Organic Chemistry.* 2 hrs. both terms.

An introduction to the study of the compounds of carbon. Laboratory work with lectures.

[Tuesdays and Fridays, 9.30–11.20.]

*18 *Quantitative Analysis.* 3 hrs. both terms.

Laboratory practice in the use of the simpler methods of gravimetric and volumetric quantitative analysis.

[Tuesdays and Thursdays, 2.00–4.50.]

Dr. BROWNING :—

19 *Inorganic Preparations.*

Practice in the preparation of certain typical inorganic substances and salts of the rarer elements, together with a study of the special methods in use for the detection of impurities in inorganic reagents. The work is entirely of a practical nature, having as its basis Bender and Erdmann's *Anorganische Präparate* and Krauch's *Prüfung chemischer Reagentien.*

[Daily ; hours for consultation fixed by appointment.]

20 *Advanced Qualitative Analysis.*

The study of methods in use for the detection of certain of the elements not included in the ordinary scheme of Qualitative Analysis, and the systematic arrangement of these tests so far as is practicable.

Professor GOOCH :—

21 *Quantitative Chemical Analysis (second course).*

Practice in the more complex processes of gravimetric, volumetric, and electrolytic analysis.

[Daily ; hours for consultation fixed by appointment.]

22 *Organic Synthesis.*

Laboratory practice in synthetical processes too long or too complicated to be included in the more elementary work of Course 16.

23 *Chemical Theory.* 2 hrs. both terms.

This course is devoted to the discussion of the general principles and modern theories of chemistry. It is given in alternate years, and will be omitted in 1896–97.

24 *Special Methods.*

Laboratory practice in special methods of analysis and research.

[Daily; hours for consultation fixed by appointment.]

25 *Original Work and Research in Inorganic Chemistry.*

(*a*) Special problems of *analysis*—either experimental criticism of known processes or constructive work looking toward the development of new methods.

(*b*) The critical examination of reactions.

[Daily; hours for consultation fixed by appointment.]

Professor WELLS:—

The analytical laboratories of the Sheffield Scientific School are open to students in term time from 9 to 1 and from 2 to 5 o'clock, every week-day except Saturday. The greater part of the instruction is given in the laboratory to each student separately, but the various classes have, in addition, two or more familiar lectures or recitations a week, in connection with the studies pursued in the laboratory.

*26 *Qualitative Analysis.* 1st term.

Embraces a study of the commonly-occurring elements in their qualitative relations, and includes a systematic course of analysis for the same. A good knowledge of elementary chemistry is a necessary preparation for this. If desired, the course is extended to include a study of many of the rare elements.

[Laboratory work: Monday to Friday, 9 A. M. to 1 P. M., and 2 to 5 P. M. Lectures and Recitations: Thursdays and Fridays, 5 P. M.,—occasionally at 12 M.]

*27 *Quantitative Analysis.*

This is open only to those who have taken course 26 or its equivalent.

(*a*) *Gravimetric Analysis.* Second term. Embraces a series of exercises involving a considerable number of important methods.

(*b*) *Volumetric Analysis.* First term. This follows the gravimetric analysis. It includes the most important and typical methods.

(*c*) *Ultimate Organic Analysis.* First term.

28 *Advanced Quantitative Analysis.*

(*a*) *Metallurgical Chemistry.* The analysis of ores, fuels, fluxes, alloys, metals, and other furnace products.

(*b*) *Mineralogical Chemistry.* The analysis of minerals for scientific purposes.

*29 *Metallurgy and Assaying.* 2d half of 2d term.

A course of lectures on elementary metallurgy, followed by a short course of demonstrative lectures on gold and silver assaying, with the practical application of assaying to a few typical ores.

*30 *Technical Gas-Analysis.* 2d half of 2d term.

A short practical course, including the principal methods.

31 *Investigations in Inorganic Chemistry.* both terms.

Opportunities are offered to those who have had sufficient preparation to make researches on analytical methods, in the preparation and investigation of chemical compounds, and other scientific problems.

Dr. COE :—

32 *Cytology and General Embryology.* 4 hrs. 1st term.

Laboratory work supplemented by lectures, on the animal cell in the principal phases of its activity, with special reference to maturation, fertilization, and cleavage of the ovum. The course will require two forenoons a week and will include practical study of cell with resting nucleus, cell-division, spermary and spermatozoa, ovary and maturation of the ovum, fertilization, cleavage, and formation of primary layers of the embryo. Considerable attention will be given to the technique of the subject.

In addition to the above, special courses may be arranged for the second term to meet the requirements of individual students, and such courses may include a study of the later stages of the development of the embryo.

Professor VERRILL :—

33 *Zoology.*

Laboratory practice, recitations, readings, and lectures. The laboratory work is varied according to circumstances, in order to accommodate, as far as possible, those students who wish to pursue special branches. A large part of the time is usually devoted to comparative anatomy, morphology, and systematic zoology. Ample collections in the Peabody Museum, representing all classes of animals, are available for instruction, while the proximity to the sea makes it easy to provide fresh or living examples of most classes of marine animals for study and dissection.

[Tuesdays, Wednesdays, Thursdays, Fridays, 10 A. M. to 12 M.]

Professor S. I. SMITH :—

*34 *Elementary Anatomy and Histology.* 4 hrs. 1st term.

Four exercises, of a minimum of two hours each. Laboratory work and informal lectures. The time is devoted principally to dissections of the frog, and work with the microscope on the lower plants and animals, and in vertebrate histology, with special reference to the rudiments of biology and the elements of the morphology of animal tissues. The student is required to make microscopical preparations, keep careful records of his work, and pass frequent examinations.

[Mondays and Fridays, 2 to 4 P. M. ; Tuesdays and Thursdays, 3 to 5 P. M.]

*35 *Comparative Anatomy and General Biology.* 6 hrs. 2d term.

An elementary course similar to the last, but more extended. The anatomy and histology of the higher animals are studied in more detail, microscopical preparations of the principal tissues and organs are made and examined, the general principles of the morphology of the tissues are illustrated, and the student is specially drilled in distinguishing the different tissues under the microscope. Near the end of the term, instruction in embryology, with special reference to human morphology, is given by a short course of lectures.

36 *Comparative Anatomy and General Biology.*

Graduate students who have had sufficient elementary training are received in the Sheffield Biological Laboratory and are provided with special advanced courses of instruction adapted as far as possible to the particular wants of the individual student. Such courses may cover either or both terms and require at least three hours of laboratory work per day for two or more days each week. To such students the laboratory is open five days a week.

Professor CHITTENDEN and Dr. MENDEL :—

37 *Physiological Chemistry.*

Graduate students having sufficient knowledge of analytical and organic chemistry and elementary physiology are received into the Sheffield Biological Laboratory at the beginning of the academic year, where they can pursue a course in physiological chemistry, extending throughout the entire year. The course necessitates, on an average, four hours of laboratory work per day, and attendance on lectures and recitations three or four

times per week. Opportunities are also afforded for the carrying on of original investigations, and to students qualified for such work the laboratory is open during the entire day.

Students desirous of studying any special subject in physiological chemistry and having but a limited amount of time are also received, provided they are qualified by previous work to pursue the study advantageously.

38 *Experimental Physiology.* 2 hrs. both terms.

Laboratory work, with lectures and demonstrations in muscle and nerve physiology, circulation, blood pressure, etc., using the various graphic methods ordinarily employed in physiological work. Opportunity is also afforded for more advanced work in certain lines of experimental physiology.

39 *Experimental Toxicology.* 2d half 2d term.

A course of about twenty lectures, with demonstrations on the physiological action of the more important mineral and alkaloidal poisons. This course can be supplemented, if desired, by laboratory work on the chemical reactions of poisons, with a study of the methods of detecting and separating poisons.

*40 *Physiology.* 1 hr. both terms.

Huxley's *Lessons in Elementary Physiology*, with occasional lectures and illustrative experiments.

[Wednesdays, 2 P. M.]

*41 *Physiological Chemistry.* 4 hrs. 2d term.

Four exercises a week, of a minimum of two hours each, in the laboratory of physiological chemistry. The time is devoted mainly to a study of the chemistry of the connective, contractile, and nerve tissues, of the chemical processes of salivary, gastric, and pancreatic digestions, and so far as the time allows, of other subjects connected with the physiology of nutrition and the chemistry of the excretions.

The student must bear the expense of gas, flasks, etc., which should not exceed ten dollars.

Professor BREWER :—

*42*a* *Physical Geography.* 3 hrs. 1st half year.

This course of lectures will include the elements of dynamical geology, meteorology, and of natural history so far as is necessary for an understanding of the physical geography of the globe and the distribution of species.

[Tuesdays, Wednesdays, and Thursdays, 5 P. M.]

Dr. EVANS:—

*42*b* *Botany.* 3 hrs. 2d half term.

An elementary course in the botany of flowering plants. Laboratory work and recitations. During the first eight weeks the various parts of a plant, such as seeds, stems, buds, etc., are examined and discussed, and this work is followed by a study of the ordinary native plants of the vicinity.

[Tuesdays, Wednesdays, and Thursdays, 3 P. M.]

43 *Microscopic Anatomy nf Plants.* 2 hrs. both terms.

Laboratory work and informal lectures. The course begins with the examination of the tissues of flowering plants, with especial reference to their vegetative structure. The various groups of Cryptogams are then taken up in suitable types and their structure and development studied and compared. The course is limited to those who can show a satisfactory knowledge of the botany of flowering plants.

[Mondays and Fridays, 3 P. M.]

VII. MATHEMATICS

A. PURE MATHEMATICS

Professor NEWTON :—

1 *Analytical Statics : Dynamics of a Particle and of a System of Particles : The problem of three bodies.*

2 *Integral Calculus and Mechanics.* 3 hrs. both terms.
Mean values and probability ; differential equations ; analytical statics and dynamics.
[Tuesdays, Wednesdays, and Fridays, 11.30 A. M.]

3 *Shooting Stars and Meteors.* 1 hr. both terms
The mathematical theories of these bodies, and the treatment of the observations of them.

Professor CLARK :—

4 *Determinants and Differential Equations (successively).* 2 hrs. both terms.
The short courses in the above subjects are designed especially for the graduate students in the departments of engineering in the Sheffield Scientific School, whose time is mainly occupied with work in those departments.
[Wednesdays and Saturdays, 10 A. M.]

Professor GIBBS :—

5*a* *Vector Analysis.* 2 hrs. 1st term.
Elementary course, in which the simpler problems of geometry, kinematics, and mechanics are treated by vector methods. The matter taught is not entirely unlike that usually given in courses in quaternions, but the method followed is in some respects nearer to Grassmann's than to Hamilton's.

5*b* *Vector Analysis.* 2 hrs. 2d term.
Advanced course, including differentiation with respect to position in space, the theory of the potential and allied functions, and that of linear vector functions. This course is especially designed as an introduction to the study of mathematical physics, and is open only to those who have taken the preceding.

6 *Miscellaneous Applications of Vector Analysis.*
1 hr. both terms.

These applications are to such subjects as:—the theory of curvature, surfaces of the second degree, the motion of a rigid body, the fundamental principles of hydrodynamics, and elliptic and parabolic motion.

7 *Electro-Magnetic Theory of Light.* 2 hrs. both terms.

This course will commence with the general theory of harmonic motion and its representation by complex scalar and vector quantities. The laws of electrodynamics are then applied to the phenomena of the propagation of light in isotropic and aeolotropic media, and its reflection at a surface between two such media, including the case of an absorbent medium, with the dispersion of colors.

8 *Dynamics and Thermodynamics.* 1 hr. both terms.

This course will commence with the demonstration of the most general form of the laws of motion as given by Lagrange and Hamilton, and will then proceed to the application of the theory of probabilities to molecular mechanics, so as to deduce the notions of temperature and entropy, and the second law of thermodynamics.

In the year 1897–98, in addition to the courses 5 and 6 in vector analysis, the following will probably be given:

9 *Multiple Algebra.*

The object of this course is to give some idea of the methods and results of the principal non-arithmetical algebras, especially of the *Ausdehnungslehre* and the algebra of matrices. It is intended for such students as have already some familiarity with the algebra of vectors, derived from the preceding courses or from the study of quaternions.

10 *Thermodynamics and Properties of Matter.*

This course is a development of the consequences of the two fundamental laws of thermodynamics, as affording a general theory of physical and chemical equilibrium, and as giving shape to the investigation of the sensible properties of matter.

11 *Electricity and Magnetism.*

In this course, which is based on Maxwell's theory, the student will be taught the use of vector methods in this branch of physics.

Assistant Professor PIERPONT :—

12 *Introduction to the Higher Analysis.* 3 hrs. both terms.

The topics treated in this course, while intended as a preparation for advanced work in analysis, will be very serviceable to students of physics, astronomy, mechanics, etc. They will be nearly as follows: arithmetical operations with complex numbers; substitution-groups and their application to the solution of equations; determinants; infinite series and products; certain fundamental portions of the theory of functions of real and complex variables.

13. *Theory of Linear Differential Equations.*

2 hrs. both terms.

After a sketch of the elementary part of the general theory as developed by Fuchs, Frobenius, Hamburger, etc., various applications will be made to equations whose coefficients are rational or double periodic functions of the independent variable.

It is probable that this course will be continued the following year, when advanced parts of the theory will be treated.

14. *Selected Chapters in Elliptic Functions.* 2 hrs. both terms.

Various advanced parts of the theory of elliptic functions will be dealt with as: Theta functions with fractional characteristics; complex multiplication; equations of transformation; modular functions; applications of the elliptic functions to various problems of mathematical physics. A knowledge of the fundamental properties of the Jacobian and Weierstrassian functions will be necessary.

Assistant Professor P. F. SMITH :—

15 *The Theory of Plane Curves.*

16 *The Theory of Surfaces and Curves in Space.*

Professor PHILLIPS :—

*17 *Analytical Geometry.* 2 hrs. both terms.

A course in analytical geometry open to those who have studied the elements of the subject. It includes the use of determinants and trilinear coördinates; methods of tracing algebraic and transcendental curves; applications to map-projection; study of machines for tracing curves, and of models of mathematical surfaces; discussion of the general equations of the second and third degrees; and of the sections of the cones of the second and third degrees.

[Tuesdays and Fridays, 9.30, in B_2 O.]

Mr. BOWDEN :—

*18 *Higher Algebra.* 2 hrs. both terms.

The object of this course is to give the student a good working knowledge of the more advanced parts of Algebra especially in preparation for course 12. To this end selected chapters in Chrystal's *Algebra*, and Burnside and Panton's *Theory of Equations* will be studied. Among the subjects taken up will be: theory of complex numbers; general solution of cubic and bi-quadratic equations; series, and the doctrine of limits; permutations and combinations; Gauss's theorem; general properties of equations, symmetric functions; interpolation; continued fractions; theory of the roots of unity.

Mr. STRONG:—

*19 *Elementary Modern Geometry.* 2 hrs. both terms.

This course includes, among other topics, inversion, poles and polars, co-axial circles, transversals, and the theory of projection with its application to the simpler properties of the conic sections.

B. APPLIED MATHEMATICS

Professor C. B. RICHARDS :—

MECHANICAL ENGINEERING.

This course, arranged for candidates for the degree of Mechanical (or Dynamical) Engineer, is open also to special graduate students, who are allowed in certain cases to take selected parts. The leading topics are :

20 *Applied Mechanics.*

Including graphical methods in applied kinematics, and in the investigation of mechanisms working with friction; graphical determinations of the accelerations of the moving parts of machines; the strength of materials as affecting the proportions of machine elements; the applications of the principles of hydraulics to the construction and working of turbines and pumps.

21 *Thermodynamics.*

Applications to the compound steam-engine, air compressors and compressed air motors, engines worked by volatile vapors, refrigerating machines, the warming and ventilation of buildings.

22 *Machine Design.*

In this course the student is engaged in practical exercises under the guidance of the professor in charge, investigating machinery, the designing and making of working-drawings, specifications, and estimates for machines and manufacturing plant. In addition to the study of machines in general, either of the following subjects (at the option of the student) receives particular attention: (*a*) Marine engineering; (*b*) Railway machinery; (*c*) Pumping machinery and plant; (*d*) Machinery and plant for manufacturing. The student is required to make complete drawings, from new designs, of at least one important piece of machinery under one of these subjects. A compound marine engine and boilers, a locomotive, a turbine driving centrifugal pumps, a blowing-engine for an iron furnace, are examples.

Candidates for the degree of Mechanical Engineer are required to take also a course in mathematics, to sustain a final examination, and to present a satisfactory thesis on a subject approved by the professor in charge of the course.

Lectures on Industrial Legislation and Finance, and lectures on the higher Mathematics, are open to all students in this course.

Professor DuBois :—

Civil Engineering.

This course offers instruction for advanced graduate students as well as for those students who may be regular candidates for the degree of Civil Engineer.

It embraces the following topics :

23 *Mechanics applied to Engineering.*

Including the application of kinematics, statics, and kinetics to engineering problems.

24 *Construction and Design.*

Including the strength and properties of materials, construction and design of bridges, roofs, foundations, retaining walls, dams and embankments, masonry arches, sewerage and drainage, improvement of rivers and harbors, specifications and contracts, and the preparation of designs and working-drawings.

Candidates for the degree of Civil Engineer are required to take, in addition, a selected course in mathematics, practical astronomy, and when the facilities in the physical laboratory permit, a course of laboratory work, under the superintendence

of the professors in charge. They are also required to sustain a final examination, and to present a satisfactory thesis accompanied by appropriate designs, upon a subject approved by the professor in charge of the course.

To special students, not candidates for the degree of Civil Engineer, a selection of special topics is allowed. The lectures of the Sheffield School upon Railroad Administration, Industrial Legislation, and Finance, and upon the higher Mathematics, are open to all the students in this course.

Assistant Professor BARNEY :—

25 *Geodesy and Practical Astronomy.*

Methods of observation, based on measurements, triangulation field-work ; theory of least squares, adjustment of observations, and computation of geodetic latitudes, longitudes, and azimuth. The study of practical astronomy embraces the use of the sextant and engineer's transit with solar attachment for determining time, latitude, azimuth, and needle variation.

*26 *Railway Surveying.* Three weeks in September.

A preliminary line for a railroad is run out, and from the contour map so obtained a final line is located, staked out, and cross-sectioned, and estimates are made for construction. The field-work begins the first Monday in September and occupies the entire time for three weeks.

Assistant Professor BEEBE :—

*27*a* *Descriptive Astronomy.* 3 hrs. 1st half year.

Intended principally for the study of topics connected with the historical and physical side of astronomy. Only so much mathematical work is introduced as is essential to an understanding of such topics. Text-book: Young's *Elements of Astronomy.*

The instructor intends to offer occasionally in place of the usual recitation an hour for study of constellations and observation with the telescope.

[Mondays, Wednesdays, Thursdays, 10.30, in A. O.]

*27*b* *Surveying.* 3 hrs. 2d half year.

One or, sometimes, two hours each week are given to recitations. The other exercises are in field or office work during the afternoons, each exercise usually occupying not less than two hours.

Field-work: The ordinary operations of land-surveying, leveling, and elementary topography, involving the use of the chain, compass, surveyor's level, transit and plane table.

Office-work: Platting surveys from the field notes; determination of areas from the map and by numerical calculation; map-drawing, plane and topographical; examination of instrumental errors.

Text-book: Johnson's *Surveying*.

[Mondays, 10.30, Wednesdays and Fridays, 2.00–3.50, in A_2O.]

*28 *Practical Astronomy.* 2 hrs.

This course consists of observatory work with astronomical transit and chronograph for determination of sidereal and standard time, and with sextant and theodolite for determination of latitude and azimuth, numerical computations for reduction of observations, derivation of formulae, and recitations from Loomis's *Practical Astronomy*.

Professor E. L. RICHARDS:—

*29 *Navigation and Nautical Astronomy.* 2 hrs.

This course will treat mostly of the theory of navigation and nautical astronomy, but will include also instruction in the use of charts, and practice in observations with the sextant.

[Omitted in 1896–7.]

The Mathematical Club holds fortnightly meetings, at which are presented sketches of the history of mathematical development and inventions, summaries of articles in the current periodicals and other publications in pure and applied mathematics, descriptions and models of new apparatus, together with the original investigations of the instructors and advanced students in this department of study.

VIII. THE FINE ARTS

Professor WEIR :—

1 *Technical Course in Painting.* 2 hrs. both terms.

This course consists of two exercises a week of two hours each. The course consists principally of studies in water-color painting, and includes lectures on the grammar of art, on painting, sculpture, and architecture, technically considered, with a critical account of the various schools and their representative masters. The lectures are fully illustrated by the use of the hydro-oxygen lantern.

[Mondays and Fridays, 2 to 4 P. M.]

2 *Course in Modeling.* 2 hrs. both terms.

Two exercises a week of two hours each. The course consists in modeling from the antique and from the living figure, and is supplemented by the lectures given in course 1.

Professor HOPPIN :—

3 *History of Art.* 1 hr. 2d term.

The lectures in this department for the year 1897 will treat of the Umbrian School of Italian Painting; these will be followed by lectures on Modern Schools of Painting specially illustrated by such masters as Velasquez, Gerome, and Burne-Jones.

The first lecture of the course, however, will be one omitted last year on the Explorations at Olympia, and its Museum.

The course will consist of one lecture a week, on Tuesdays, at 4 P. M.

Professor NIEMEYER :—

4 *Course in Drawing.* 2 hrs. both terms.

This course consists of two exercises a week of two hours each in drawing from the antique and from life, and also in sketching from nature out of doors. Exercises in original composition are required from time to time. It is the aim of this course to teach the fundamental principles of art, and to make the student familiar with the use of pen and pencil.

The work in drawing is supplemented by lectures in Linear Perspective and the analysis of the muscular movements of the human body as expressed in the external forms.

[Tuesdays and Thursdays, 2 to 4 P. M.]

IX. MUSIC.

Professor PARKER :—

*1 *Harmony.* 2 hrs. both terms.

The study of chords, their construction, relations, and progressions.

[Tuesdays and Thursdays, 4 P. M.]

*2 *Counterpoint.* 2 hrs. both terms.

The work will be harmonizing and supplying melodious additional voices to choral and other melodies used as *Canti Firmi.*

Students in this course are encouraged to try the simpler forms of free composition.

[Tuesdays and Thursdays, 3 P. M.]

*3 *Strict Composition.* 2 hrs. both terms.

The more severe kinds of composition will form the basis of work in this course. This course is preparatory to course 6.

[Tuesdays and Thursdays, 2 P. M.]

4 *The History of Music.* 1 hr. both terms.

Lectures on the development of music from its earliest stages.

Practical illustrations of the lectures on musical form will be given in the class-room.

[Wednesdays, 5 P. M.]

*5 *Instrumentation.* 2 hrs. both terms.

[Wednesdays and Fridays, 3 P. M.]

6 *Free Composition.* 2 hrs. both terms.

Several of the smaller forms of free instrumental and vocal music are composed by the students, such as part-songs for male, female, or mixed voices, and pieces of different sorts for the piano and other instruments.

At the close of the year the student will be required to produce an extended work, probably in sonata form.

[Wednesdays and Fridays, 2 P. M.]

Professor SANFORD :—

7 *Practical Music.*

Instruction will be given on the organ and piano to a limited number of the students who take courses in the Theory of Music. A fee of twenty-five dollars will be charged.

X. PHYSICAL EDUCATION.

Drs. SEAVER and ANDERSON :—

*1 *Physiology and Gymnastics.* 2 hrs. both terms.

This course is designed for those who intend to teach gymnastics or to direct departments of physical education in institutions of learning. The work will come under two general branches as follows :

Physiology (Dr. SEAVER). 1 hr. both terms.

This work consists of one recitation or lecture a week during the year. The first term is devoted to elementary physiology. The second term is devoted to human physiology, special attention being given to a study of the circulation, respiration, digestion, and excretion. The hygienic importance of these topics is carefully studied. The last half-term is given to a study of sanitary science.

[Thursdays, 7 P. M.]

Gymnastics (Dr. ANDERSON). 1 hr. both terms.

Under this head will be discussed (*a*) the scientific basis of physical training ; (*b*) history of gymnastics and growth of the various systems ; (*c*) means employed, such as apparatus and appliances ; (*d*) physical examinations and measurements ; (*e*) pedagogy of gymnastics ; (*f*) practice in teaching gymnastics three hours a week. (One lecture a week during the second term.)

Three hours a week will be required in special gymnastic drill.

Members of the class will be expected to act as division leaders under the direction of Mr. H. S. Anderson. They will also be called upon to arrange exercises for other classes, and to classify movements for overcoming common physical defects.

[Practice, Tuesdays and Thursdays, 2 P. M.]

LIST OF STUDENTS

IN ATTENDANCE DURING THE

ACADEMIC YEAR 1895–96

Francis Mulliken Adams, PH.B. Yale University 1892	*New Haven, Conn.*	146 Edwards st.
Warren Austin Adams, B.A. Yale University 1886	*New Haven, Conn.*	213 D.
Alice Hopkins Albro, B.A. Bryn Mawr College 1890	*Mansfield, Pa.*	83 Grove st.
James Albert Allen, M.A. Kentucky University 1895	*Chenaulf, Ky.*	20 Whalley av.
Samuel Stokes Allen, B.A. Yale University 1894	*Philadelphia, Pa.*	56 Whalley av.
Walter Hinds Allen, B.A. Yale University 1895	*New Haven, Conn.*	324 Howard av.
Gustav Albert Andreen, B.A. Augustana College 1881 and Yale University 1894	*New Haven, Conn.*	35 Whalley av.
John Whitney Avery, B.A. Yale University 1893	*New Haven, Conn.*	559 Howard av.
Anna May Bailey, B.L. University of Michigan 1893	*Tecumseh, Mich.*	45 Lake pl.
William Bacon Bailey, B.A. Yale University 1894	*Springfield, Mass.*	22 Lynwood st.
Edward Chauncey Baldwin, B.A. Yale University 1895	*W. Cornwall, Conn.*	90 Whalley av.
Edward George Baldwin, B.A. Illinois College 1894	*Mendon, Ill.*	54 Garden st.
Cecil Kittredge Bancroft, B.A. Yale University 1891	*Andover, Mass.*	1161 Chapel st.
Charles Weed Barhydt, B.A. Union College 1885	*Westport, Conn.*	Westport.
Fred Bement, B.A. Brown University 1895	*Suffield, Conn.*	West Haven
Anna Hunt Billings, B.L. Smith College 1891	*Redlands, Cal.*	70 Whalley av.
Leslie Dayton Bissell, B.A. Yale University 1887	*Keene, N. H.*	1010 Chapel st.
Henry Davenport Blackwell, B.A. Randolph-Macon College 1890	*Broad Run, Va.*	93 Olive st.
Bertram Borden Boltwood, PH.B. Yale University 1892	*Castleton, N. Y.*	162 S. L.
Joseph Bowden, Jr., B.A. Yale University 1891	*New Haven, Conn.*	90 Lake pl.

Zakar Elijah Boyajian, B.A. Euphrates College 1895	*Harpoot, Turkey* 188 Crown st.
Henry Brewer, PH.B. Yale University 1894	*New Haven, Conn.* A.
James Wallace Broatch, B.A. Yale University 1891	*Omaha, Nebr.* 56 Whalley av.
Carleton Lewis Brownson, B.A. Yale University 1887	*New Haven, Conn.* 79 Edwards st.
Colin Sherman Buell, M.A. Yale University 1889	*New London, Conn.* New London
Henry Andrews Bumstead, B.A. Johns Hopkins University 1891	*New Haven, Conn.* 2 Hillhouse av.
Henry Walter Bunn, B.A. Yale University 1894	*Richmond Hill, N. Y.* 1204 Chapel st.
Otis Gridley Bunnell, PH.B. Yale University 1892	*Burlington, Conn.* 96 York sq.
Curtis Clark Bushnell, PH.D. Yale University 1895	*New Haven, Conn.* 19 Perkins st.
Ernest Hyde Cady, PH.B. Yale University 1895	*Hartford, Conn.* 111 Grove st.
Forest Emberson Calland, B.A. Drury College 1893	*Springfield, Mo.* 76 W. D.
Frank Herbert Chase, B.A. Yale University 1894	*Haverhill, Mass.* 51 Trumbull st.
Clement George Clarke, B.A. Yale University 1895	*Manhattan, Kan.* 219 York st.
Charles Frederic Clemons, B.A. Yale University 1895	*Manchester, Vt.* 196 York st.
Henry Trumbull Clifton, PH.B. Yale University 1895	*Washington, D. C.* 233 York st.
Daniel Floyd Culler, B.A. Pennsylvania College 1893	*Apollo, Pa.* 563 Howard av.
Johannes Heinrich Cuntz, C.E. Renss. Polytechnic Inst. 1886, M.E. Stevens Inst. 1887	*Hoboken, N. J.* 90 High st.
Anna Alice Cutler, M.A. Smith College 1889	*New Haven, Conn.* 284 Orange st.
William Watts Davidson, B.A. Yadkin College 1880, B.D. Yale University 1888	*Gibsonville, N. C.* 343 George st.
Arthur Ernest Davies, B.D. Yale University 1891	*New Haven, Conn.* 122 Day st.
Henry Davies, B.D. Yale University 1888	*New Haven, Conn.* 701 Chapel st.
Arthur Louis Day, PH.D. Yale University 1894	*New Haven, Conn.* 25 High st.
Elizabeth Street Dickerman, B.A Smith College 1894	*New Haven, Conn.* 15 Lake pl.

William Chester DeForest Dickinson, M.A.
Yale University 1892 — *New Haven, Conn.* 323 Sherman av.

Philip Dowell, B.A.
Augustana College 1885, PH.B. Yale University 1895 — *Galva, Ill.* 53 Winchester av.

Frederick Levy Dunlap, S.B.
University of Michigan 1892, S.D. Harvard University 1895 — *Chillicothe, O.* 39 Lynwood st.

John Joseph Dunn, B.A.
Yale University 1895 — *New Haven, Conn.* 921 Grand av

Harry Westbrook Dunning, B.A.
Yale University 1894 — *Boston, Mass.* 473 Elm st.

George Francis Eaton, B.A.
Yale University 1894 — *New Haven, Conn.* 70 Sachem st.

John Warren Edgerton, B.A.
Trinity College 1894 — *Middletown, Conn.* Middletown

Charlotte Fairbanks, B.A.
Smith College 1894 — *St. Johnsbury, Vt.* 83 Grove st.

William Henry Ferris, B.A.
Yale University 1895 — *New Haven, Conn.* 87 Eaton st.

Grace Cochran Flippin, B.A.
Vanderbilt University 1895 — *Memphis, Tenn.* 421 Temple st.

Harry Ward Foote, PH.B.
Yale University 1895 — *New Haven, Conn.* 57 N. S. H.

George Congdon Fouse, PH.B.
Yale University 1893 — *Washington, D. C.* 411 Temple st.

Henry Thatcher Fowler, B.A.
Yale University 1890 — *New Haven, Conn.* 67 Mansfield st.

John Jay Fredericks, PH.B.
Yale University 1895 — *Syracuse, N. Y.* 139 Elm st.

Lewis Fox Frissell, B.A.
Yale University 1895 — *New York City* 13 E. D.

Edward Grier Fullerton, M.A.
University of Pennsylvania 1886 — *Bridgeport, Conn.* Bridgeport

Henry Comstock Garneau, M.A.
St. Louis University 1895, PH.B. Yale University 1895 — *St. Louis, Mo.* 59 Wall st.

William John Gies, B.S.
Gettysburg College 1893, PH.B. Yale University 1894 — *Manheim, Pa.* 2 Hillhouse av.

William Anthony Granville, PH.B.
Yale University 1893 — *New Haven, Conn.* 90 Prospect st.

Gervase Green, B.A.
Yale University 1894 — *New Haven, Conn.* 1233 Chapel st.

Matthew Griswold, Jr., PH.B.
Yale University 1888 — *Erie, Pa.* A.

Gustav Frederick Gruener, B.A.
Yale University 1884 — *New Haven, Conn.* 276 L.

Grace Guthrie, B.A.
Bucknell College 1894 — *Pottsville, Pa.* 102 Kimberly av.

Josiah Harmar, PH.B. Yale University 1892	*Philadelphia, Pa.*	A.
Mattie Anstice Harris, M.A. Lincoln College (Ill.) 1894	*Westfield, N. J.*	45 Lake pl.
Theodore Woolsey Heermance, B.A. Yale University 1893	*New Haven, Conn.*	Athens, Greece
Yandell Henderson, B.A. Yale University 1895	*Louisville, Ky.*	81 Wall st.
Burton Jesse Hendrick, B.A. Yale University 1895	*New Haven, Conn.*	92 Clark st.
Clara Maria Hitchcock	*Michigan City, Ind.*	34 Hillhouse av.
Victor Hoeper, PH.D. University of Freiburg 1893	*Strasburg, Germany*	378 Crown st.
Richard Thayer Holbrook, B.A. Yale University 1893	*New York City*	Paris, France
Elizabeth Wilder Holmes, B.L. Mt. Holyoke College 1893	*Ayer, Mass.*	111 York st.
Wm. Thomas Hildrup Howe, PH.B. Yale University 1893	*Killingworth, Conn.*	162 S. L.
John Louis Hunt, B.A. Yale University 1895	*Hopewell, N. J.*	64 Lake pl.
Everett Bradley Hurlburt, PH.B. Yale University 1894	*Roxbury, Conn.*	145 College st.
Moses Jacob Husinsky, M.D. Yale University 1892	*New Haven, Conn.*	156 Congress av.
Charles Anthony Ingersoll, PH.B. Yale University 1893	*New Haven, Conn.*	24 Elm st.
James W. D. Ingersoll, PH.D. Yale University 1894	*New Haven, Conn.*	399 B.
Charles Samuel Ingham, B.A. Yale University 1891	*Saybrook, Conn.*	2 Hillhouse av.
Edward Clinton Jones, B.A. Yale University 1895	*New Haven, Conn.*	84 William st.
Samuel Smith Keller, M.A. Wittenberg College 1891	*Springfield, O.*	26 Howe st.
George Dwight Kellogg, B.A. Yale University 1895	*Cambridge, Mass.*	90 High st.
Edward Gridley Kendall, B.A. Yale University 1895	*New Haven, Conn.*	62 Lake pl.
James Malcolm Kendall, B.A. Bucknell College 1894 and Yale University 1895	*New Haven, Conn.*	62 Lake pl.
Frederick Wilkinson Kilbourne, PH.B. Yale University 1894	*Meriden, Conn.*	Meriden
Shunkichi Kimura, B.S. Imperial Univ. of Japan 1887	*Tokyo, Japan*	9 Trumbull st.
Genevieve Kinne, B.A. University of Michigan 1890	*Ypsilanti, Mich.*	45 Lake pl.

Maurice Lacroix, Gymnase de Genève (Switzerland) 1887	*Geneva, Switzerland*	65 Clark st.
Jessie May Law, B.A. University of Nebraska 1894	*Hazardville, Conn.*	57 Pearl st.
Charlton Miner Lewis, B.A. Yale University 1886, LL.B. Columbia College 1889	*New Haven, Conn.*	102 N.
Julius Lincoln, B.A. Bethany College (Kan.) 1891	*Lindsborg, Kan.*	35 Whalley av.
Edwin Hoyt Lockwood, M.E. Yale University 1892	*New Canaan, Conn.*	56 N. S. H.
Laura E. Lockwood, B.A. University of Kansas 1891	*Lawrence, Kan.*	78 Dwight st.
Walter Irenaeus Lowe, B.A. Yale University 1890	*New Haven, Conn.*	238 Whalley av.
Frank Ranney Luckey, B.S. Cornell University 1882, B.D. Yale University 1888	*New Haven, Conn.*	191 Bradley st.
Boynton Wells McFarland, C.E. Yale University 1891	*New Haven, Conn.*	420 Temple st.
Fred Elmer Marble, B.A. University of Rochester 1887	*Wallingford, Conn.*	7 E. D.
Milton Mozart Marble, B.A. Harvard University 1889	*New Haven, Conn.*	244 Oak st.
William Crosby Marshall, M.E. Yale University 1894	*Cromwell, Conn.*	55 N. S. H.
Arthur Marvin, B.A. Yale University 1891	*New Haven, Conn.*	40 Lake pl.
James Denman Meeker, B.A. University of California 1891	*San Francisco, Cal.*	62 Lake pl.
Alfred Kindred Merritt, B.A. Yale University 1893	*New Haven, Conn.*	1044 Chapel st.
James Lee Mitchell, B.A. Harvard University 1884	*New Haven, Conn.*	238 Grand av.
Walter Louis Mitchell, PH.B. Yale University 1895	*New Haven, Conn.*	Edgewood
George Webber Mixter, PH.B. Yale University 1895	*New Haven, Conn.*	57 N. S. H.
Edwin Morrison, PH.B. Yale University 1888	*Cincinnati, O.*	A.
Henry Hotchkiss Murray, PH.B. Yale University 1893	*Viola, Del.*	54 Garden st.
Augustus Nelson, B.A. Gustavus Adolphus Coll. 1890	*Lake City, Minn.*	149 St. John st.
Theophilus Nelson, PH.B. Yale University 1892	*New Haven, Conn.*	57 Lake pl.
Robert Hastings Nichols, B.A. Yale University 1894	*Binghamton, N. Y.*	59 W. D.